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Educational News and Editorial Comment

AMERICAN EDUCATION WEEK

From Monday, November 16, to Sunday, November 22, the American people are asked to give special attention to the problems of public education. The following program for the week has been prepared jointly by the United States Bureau of Education, the American Legion, and the National Education Association: Monday, Constitution Day; Tuesday, Patriotism Day; Wednesday, School and Teacher Day; Thursday, Conservation and Thrift Day; Friday, Know Your School Day; Saturday, Community and Health Day; Sunday, For God and Country Day.

An urgent plea for the observance of American Education Week is issued as follows:

> During this week let every community study not only its educational plant but also its educational ideals and the community and atmosphere in which children are brought up. Let parents visit teachers and teachers visit parents in an effort to solve the common problems of children. Let the week be a time of deeper understanding on the part of the people of the rôle education has played, is playing, and must play in the life of our great democracy.
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> American Education Week is the only time in all the year when the entire Nation is called upon to dedicate itself anew to the great task of universal education for democratic living. The schools themselves have a remarkable

opportunity to teach every boy and girl his responsibility as a citizen to help maintain an educational system which will perpetuate the best in the life and ideals of the Republic.

Persons preparing programs or addresses for education week may obtain suggestions for speakers and other material from the American Legion, Indianapolis, Indiana; a research bulletin giving facts with regard to the program from the National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C.; and broadsides and other material from the United States Bureau of Education, Washington, D.C.

GROUPING PUPILS ACCORDING TO ABILITY

At the close of the last academic year the following statement was published in the *Educational Research Bulletin* of the Los Angeles city schools by Juliette Pierce, the vice-principal of the San Pedro High School.

The mental-level grouping aids in discipline. The quick pupil is kept busy and has less time for mischief; the slow one is able to follow the recitation and is less inclined to be disorderly. The so-called "non-curricular" boys and girls are taken from regular classes and placed in separate rooms or groups. This is a great boon to the recitation teacher. The intelligence tests furnish a more or less scientific basis for such placements and lift a real burden from the recitation teachers. The teacher in charge of this room has a training that enables her to help the boys and girls. They may return to the regular classes when they are ready to do so. In fact, they are usually enrolled in regular classes for one-half day and for special instruction and individual help one-half day. Happiness and satisfaction have been the result of our special groups. The boys and girls welcome the change just as much as the teacher does. They express their appreciation of the help they receive.

Each mentality seems to require its own kind of life for its success and happiness. The boys and girls grouped on their own mental level have the joy of accomplishment, the satisfaction of doing just as well as anyone else in their group. This is one of the great values that accrue to the pupil. It builds up his self-reliance and his morale.

Our teachers are in hearty sympathy with the ability grouping. About 25 per cent of the faculty have recently taken the fundamental course in tests and measurements. Several have had, or are having, advanced courses that prepare them for the work of a counselor. At the opening of the semester the teachers were asked to express in writing their opinions of the classification; opposition was invited, but none was expressed. Those who have had experience in teaching the different groups are unanimous in the spirit of co-operation and approval.

We have had no opposition from parents or boys and girls. We have practically no requests from the pupils for transfers from one group to another. If the parents and boys and girls are conscious of the basis of the grouping, they are sufficiently satisfied and happy to make no comments. A very definite effort is made to keep the work in harmony with the ability of the groups. Teachers may recommend changes from one group to another at any time; whenever such change is recommended, it is made. Groups are, in no sense, closed groups. No boy or girl should have any stigma of mental deficiency. When difficulties appear, the physician and the specialist in psychology should be available for consultation and diagnosis. What seems to be mental deficiency may prove to be a specialized defect, demanding individual treatment.

MAKING THE CURRICULUM

The following item appeared recently in the *New York Times*.

The Italian language, as an elective study, probably will be included in the curriculum of the Orange High School [Orange, New Jersey] as a result of a recommendation to that effect made by Mayor Frank J. Murray in a letter which was read and favorably considered at a meeting of the board of education.

After a favorable discussion the matter was referred to the Teachers' Committee of the board. The language will not be taught in the high school before the beginning of the second term, February 1, because the first-term schedule had been completed before the subject was discussed. About 40 per cent of the 6,700 pupils attending the Orange public schools are of Italian parentage, it was said.

In his letter to the board, Mayor Murray said that a committee of citizens of Italian descent recently had waited on him and asked that he take the matter up with the board of education. He pointed out that the growing importance of commercial intercourse between Italy and America and their diplomatic relationship indicated that the Italian language may become practically a necessity to both business men and statesmen of the future.

Mayor Murray explained that introducing the study of Italian into the curriculum would in no way interfere with the teaching of other languages, and, as a number of Orange teachers are qualified to teach it, that there would be no additional expense. The matter is said to have been agitated for some time by citizens of Italian descent. Last year Italian was taught in some of the night classes.

On first reading, this may seem to be a wholly innocent effort on the part of a public-minded official to serve the constituency which put him into office. If Orange is full of Italians, why not introduce their language into the high school? It will do good, and it will cost nothing. A little reflection, however, leads to more serious second thoughts. Is it true that the Italian course will cost nothing?

It will cost a readjustment of the program and cannot be arranged before February 1. This seems to indicate that the energy which is to be devoted to Italian is now being used in directions dictated by other activities, by considerations which were strong enough to determine the action of the school authorities before the mayor took a hand in the arrangement of the curriculum.

In any case, is it really desirable to add to the curriculum of a high school a subject which costs nothing? Would the mayor want to live in a shack which could be thrown together on a squatter's lot? Certainly not; he would doubtless prefer a house planned with care and made of substantial material.

If Italian is taught because many Italians left Italy and settled in Orange, possibly the population of that city could be increased to the advantage of the municipal government by introducing a course in Polish and another in Yiddish. The political considerations which move municipal officers are numerous and diverse. Why not pattern the curriculum of all schools after the wise suggestions of mayors and petitioning nationalists?

The curriculum of the American high school is, we are all aware, in process of radical revision. There is a tendency in some quarters—Orange, New Jersey, and Tennessee—to adopt methods of revision of the school program which seem to exhibit more politics than intelligence. School people should study this tendency because it expresses a theory of education which it is important for a democratic nation fully to understand.

RURAL HIGH SCHOOLS

Two bulletins recently issued by the Bureau of Education deal with the rural high school and its constituency. One is by Professor Emery N. Ferriss, of Cornell University, entitled, *The Rural High School: Its Organization and Curriculum;* the other is by E. E. Windes, associate specialist in rural education in the Bureau of Education, entitled, *High School Education of the Farm Population in Selected States.*

These bulletins show the extent to which the opportunities of a high-school education offered to rural communities are inferior to those offered in the cities. Apparently, the more purely agricultural

a state is, the greater the discrepancy between the opportunities of farm and non-farm groups. Very small farms, which generally indicate unfavorable economic conditions, and very large farms, which result in a wide distribution of the population, are unfavorable to the development of high schools. Farm boys attend high school to a less extent than do farm girls.

Those who attend rural high schools ordinarily find these institutions consolidated organizations which include an elementary school and a high school in the same building. They find principals who devote most of the day to teaching. The curriculum is largely influenced by the academic traditions which have descended from an earlier period, though there is some tendency to adopt the newer subjects, especially in agriculture and home economics.

Professor Ferriss' statement regarding the curriculum is as follows:

> In general, it may be said that the subjects offered by the majority of the rural and semirural high schools are those in English, mathematics, foreign language, history and civics, natural science, and home economics. Of 283 rural high schools, 50 per cent or more offered sixteen different subjects, counting each year of English as a subject. Practically every school offered a year of English for each year of work done. Approximately all gave elementary algebra and plane geometry. Nearly all schools giving three- and four-year courses offered American history. Seventy-one per cent of the schools offered ancient history and 12 per cent general or world-history; 71 per cent gave a course in medieval and modern history; 64 per cent reported civics as a separate course either for one semester or for a year.
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> Other subjects given by 50 per cent or more of the rural high schools were, in the order of frequency: Latin 1 and general science offered by 70 per cent of the schools; physics by 66 per cent; Latin 2 by 65 per cent; home economics by 62 per cent; and intermediate or advanced algebra by 55 per cent. . . . .
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> Subjects not included in the subject-matter fields offered by 50 per cent or more of the rural high schools are agriculture given by 44 per cent, bookkeeping by 38 per cent, vocal music by 37 per cent, and manual training by 32 per cent.
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> The data for all rural high schools with regard to agriculture and home economics do not show what proportion of those offering such subjects were giving vocational courses. In the fifty-four rural high schools visited, 50 per cent of the schools were giving work in agriculture; exactly one-half of the schools offering such work had vocational courses. Sixty-three per cent of the schools were giving courses in home economics, and approximately one-fourth of those offering such courses were giving work in vocational home-making.

In summarizing the problems of the rural high school, Professor Ferriss writes as follows:

The most pressing problems facing these rural and semirural high schools, within the scope of the present study, as indicated by the data gathered, seem to be: (1) to keep within reasonable bounds the teacher's load in number of instruction periods and number of different subjects handled; (2) to make possible for the principal a desirable distribution of time for the performance of his various duties; (3) to give teachers adequate supervision and encouragement toward professional growth; (4) to give pupils adequate educational and vocational guidance; (5) to organize, direct, and control extra-classroom activities; (6) to develop and retain community and school co-operation; (7) to offer a program of studies of desirable breadth and variety; (8) to organize curriculums to meet most effectively the educational needs of the pupil, the community, and the nation; (9) to set up requirements for graduation that will insure each pupil contact with the essentials of education in a democracy and, at the same time, permit of sufficient flexibility to meet the individual needs of the pupil.

Practically all these problems spring entirely or in part from one source, namely, the smallness of the rural and semirural high schools. Approximately one-half of such schools have a high-school enrolment of fifty or fewer pupils. They have teaching staffs of three to four teachers, including the principal. To offer four years of high-school work under these conditions, even with the best organization possible, results in a heavy teaching load, if the school offers any subjects other than those ordinarily required for graduation. The smaller the school, the more serious the problems become.

RURAL HIGH SCHOOLS IN KANSAS

The following statement regarding the spread of consolidated schools in Kansas and the erection of rural high schools is quoted from the *Christian Science Monitor*.

The rural high school has become popular on the western prairies, where buildings costing more than $100,000 have been erected in hamlets where no railroad exists. The pupils from a wide area are brought by busses, some of which are driven by the teachers. The principal and teachers reside at the school in a "teacherage" and dormitories, the former for the head of the school and his family and the latter for the unmarried members of the faculty.

These consolidated school districts serve a real need of the farm country, and 172 are now operated. In 1920 the state had twelve such schools with an area of 560 square miles; the present list covers an area of 6,106 square miles. During the past school year 25,895 pupils were enrolled; 1,269 teachers were employed; and 455 motor busses made daily trips to transport the pupils. Many new consolidated schools were added with the opening of the new school year.

The busses cover 9,182 miles every day, carrying more than eight thousand

pupils. The busses lost only 296 trips out of more than one hundred thousand scheduled last school year, or one trip for every two busses.

The average transportation cost is $231 per school, $68.70 per bus, $3.99 per pupil a month. This expense is paid by the school districts and is part of the plan to give all the children of the several districts which were consolidated the advantage of better teaching and a high-school course.

The schools of higher education are benefiting directly from this rural development, and a steady increase in attendance is shown. Eventually the entire western part of the state will be divided into rural and consolidated school districts with opportunity for the dwellers on the loneliest ranch or the most distant farm to secure as sound elementary and intermediate training as the residents of the towns and cities.

READING HABITS OUTSIDE THE CLASSROOM

William F. Rasche, of the Division of Vocational Teacher Training and Research of the Milwaukee Vocational School, has made an interesting study of the reading habits of pupils in that school and of graduates of the school who have gone into industry. The results of this study are presented in a mimeographed pamphlet, from which the following quotation is taken.

The charts based on the statistics obtained in the survey show conclusively that the newspaper has a greater grip on young workers than have either magazines or books. The charts indicate also that interest in the newspaper is very strong even before boys and girls enter employment. This interest in the newspaper strengthens as the workers become older. The interest in books is about the same as the interest in magazines, with a slight advantage in favor of books at the time employment begins. As the workers become older, interest in books drops to third place, while interest in magazines advances to second place. As the girls become older, their interest in magazines increases, and their earlier interest in books is retained. In the case of the boys the figures show a loss of interest in both books and magazines. In the case of both boys and girls the difference in interest between book reading and magazine reading is only slight. Interest in books and magazines lags far behind interest in the newspaper. It may be stated that one-seventh of the new boys who read newspapers do not read books. Of the older boys, two-fifths of the newspaper readers do not read books. A little less than one-fifth of the new girls and a little more than one-fifth of the old girls who read newspapers do not read books.

MATHEMATICS IN GIRLS' SCHOOLS IN ENGLAND

The London *Times Educational Supplement* has published an article from which a number of paragraphs may be quoted. The

article touches a matter which is of large interest in American high schools and also refers to one phase of school organization in which American schools are in advance of all European institutions.

Mathematics in boys' schools and mathematics in girls' schools are frequently regarded from different standpoints. The budding male intellect is credited with an affinity for the subject, which in girls' schools is frankly acknowledged to be a bugbear. There are signs, however, that this attitude of mind is yielding to a realization of the all but unique value of mathematics in the intellectual development of the young of both sexes.

There is no doubt that the method of teaching the subject in girls' schools, at any rate in prematriculation forms, is far from satisfactory. In fact, in many cases, the study of mathematics is doomed to failure before it is begun. The traditional view is that girls find the subject difficult and dull and that they are naturally handicapped by inferior capacity for it. The force of suggestion does the rest. The girl who excels in mathematics is an exception; the girl who falls behind finds immediate sympathy and is excused from making further efforts.

The first aim of the teacher must be to counter this prejudice by every means in her power, and she must begin to do so from the first moment of the first lesson. First of all, the pupil should be won over to the idea that geometry and algebra are matters of everyday interest. The time spent by beginners in recognizing types of angles in their surroundings, in discovering isosceles triangles in the hanging of the form-room pictures, or in forming angles of different sizes with their feet is not wasted, because it results not only in knowledge but also in interest. There is inherent in every vigorous young mind a joy in "getting it out," and, if this unemployed zest can be yoked to the subject by presenting the latter as a series of fascinating puzzles, progress becomes rapid. The bogy of the "problem" automatically disappears because problems are only puzzles "writ large."

Girls are often allowed to drop mathematics before it is definitely proved that their failure to apprehend is not attributable to gaps in the teaching which they have received. These may be due to absence or neglect on the part of an unobservant teacher who has allowed signs of discouragement to pass without effort to remedy.

How one envies the spacious classrooms one sees in American schools, with large blackboards ranged all around the walls! For it is good tactics to allow pupils, whenever possible, to demonstrate riders on the blackboard, and free criticism of both teacher and classmates should be encouraged even if this leads, as it will, to heated arguments. Discussion of merits or demerits of a proof, detection of flaws in reasoning, even friendly quarrels—all foster a spirit of liveliness; girls with slow-moving minds will be caught up by the spirit of enthusiasm, and a general quickening of intelligence will ensue.

SYSTEMATIC REVISION OF THE CURRICULUM

A news bulletin from the Denver school system contains the following information.

A. K. Loomis has been appointed director of the department of curriculum revision of the Denver public schools.

For more than three years the revision of the curriculum has been actively in progress under the supervision of Deputy Superintendent A. L. Threlkeld, with the assistance of L. Thomas Hopkins, professor of education, University of Colorado, for two years and of W. D. Armentrout, of the Colorado State Teachers College, Greeley, Colorado, for one year.

Near the close of the last school year the board of education accepted the recommendation of Superintendent Jesse H. Newlon that the work of the revision of the curriculum should be a continuous program and established a permanent department.

It is interesting to note that the city which has probably devoted more time and attention to the study of the curriculum than has any other city in the United States has learned the lesson that there is no possibility of standing still in the organization of the materials of instruction. There is new material which is constantly being discovered and formulated in every field of knowledge. There are new and stimulating methods of presenting this material which are being devised by ingenious teachers. The school system which will keep its curriculum alive must carry on a program of constant study and revision. The more teachers and superintendents study the problems of the curriculum, the more fully they will become aware of the importance of the educational task of keeping the schools abreast of the intellectual demands of the times.

VOCATIONAL PROBLEMS IN THE HIGH SCHOOL

In a recent bulletin published by the University of Illinois under the title, *Conservation of Intelligence in Illinois High Schools*, Professor Charles W. Odell has sought to throw light on the problem of the relation of intelligence, as measured by tests, to the vocational and professional careers of high-school pupils. He asks three questions which are of importance and gives quantitative answers to these questions.

1. Do the plans of high-school Seniors for further education correlate with their intellectual fitness to continue in higher insti-

tutions of learning? The answer to this question in Professor Odell's words is as follows:

> For the purpose of this discussion we may consider intelligence quotients of 110 and above as being high and those below 90 as being low. On the basis of the studies of the relationship between college and intelligence, we are justified in assuming that practically all individuals with I.Q.'s of 110 and above are able to do college work successfully, whereas almost none with I.Q.'s below 90 can do so. Indeed, there are not very many individuals with I.Q.'s below 100 who are able to do college work of satisfactory quality.
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> The number of Illinois Seniors of high intelligence undecided about continuing their education or not expecting to do so amounted to approximately 7 per cent of the total number (boys, 7.6 per cent; girls, 6.4 per cent). Comparing this with the total number having intelligence quotients of 110 and above, we find that about one-fourth of the Seniors having high I.Q.'s either did not expect to continue their education or had made no definite plans to do so (boys, 23.6 per cent; girls, 26.6 per cent). Nearly one-fourth (boys, 22.1 per cent; girls, 24.0 per cent) of all the Seniors expecting to attend a four-year institution had I.Q.'s between 90 and 100. If these figures are compared with the total number having intelligence quotients below 90 and from 90 to 100, respectively, we find that almost three-fifths (boys, 61.4 per cent; girls, 56.5 per cent) of the former group and slightly more than three-fifths (boys, 63.9 per cent; girls, 62.9 per cent) of the latter group were definitely planning to obtain a higher education.

2. Does the distribution of the vocational choices of high-school Seniors correspond with the demands of society as indicated by an enumeration of the vocational opportunities in the professions and the various lines of commerce and industry? The answer is:

> Certainly at least one-fourth, and perhaps as many as one-half, of our high-school Seniors will find it necessary to alter their vocational plans if the proportions engaged in various occupations are anything like those which fit society's needs. It is possible to object to this statement on the ground that, although the vocational choices of our workers should agree approximately with the demands of society, those of high-school Seniors should not, or at least need not, do so. This implies that many of our workers will not be high-school graduates and that from the ranks of these non-graduates will come most of our unskilled workers. Although the writer admits that this is true to a very limited extent, he does not believe that such a condition should obtain for any large proportion of our young people. He believes that it should be one of the fundamental ideals of our democratic system of education that every young person who can profit thereby should receive a high-school education and, furthermore, that the high-school education offered should be of such a sort that the large majority of our young people can profit by receiving it.

3. Does the intellectual capacity of high-school Seniors choosing various vocations agree with the intellectual demands made by these vocations? The answer is:

It is easily seen by glancing at Tables IX and X and at Figure 2 that a large proportion of the Seniors of inferior mental ability planned to enter vocations requiring a high degree of intelligence and also that many of those mentally superior planned to enter vocations in which high intelligence is not necessary to success. For example, almost one-fourth of the boys who chose engineering, one-third of those who chose medicine, over one-third of those who chose teaching, and over one-sixth of those who chose miscellaneous professions, had I.Q.'s below 100. On the other hand, more than one-fourth of the boys who were planning to be clerical workers, the same fraction of those planning to enter farming and forestry, and almost one-third of those planning to enter skilled manufacturing and mechanical work had I.Q.'s of 110 or higher. Similar figures could be quoted for the girls also. It is true that there is a tendency for the median I.Q.'s to be higher in the occupational groups requiring the highest intelligence and lowest in those requiring the least, but the differences between the medians are comparatively small and the overlapping of the distributions so great that one is justified in saying that the relationship between intelligence and vocational choices is small. It seems evident, therefore, that a considerable amount of waste results from the entrance of persons of low intelligence into occupations too difficult for them and from the entrance of those of high intelligence into occupations in which they cannot make use of all of their mental ability.

It is a well-known fact that success in vocations does not depend on intelligence alone. Character and interest must be taken into account both in choosing vocations and in predicting success in them. When due allowances are made for these complicating factors and for the inaccuracy of the intelligence measurements, there appears to be sound evidence for the conclusion that the vocational choices of young people are not well adjusted either to the capacities of these young people or to the demands of society. The problem is one to which high-school administrators would do well to devote careful study.

ANOTHER MAGAZINE REFORM OF SCHOOLS

The *Delineator* has opened a campaign which is described in the following letter addressed to the editors of the *School Review*.

In the October number the *Delineator* is starting a campaign in which we feel sure you will be interested.

We want to find out why 110,000 teachers in the public schools deserted the profession last year and why a smaller and smaller percentage of college graduates are choosing school teaching as a career.

There is certainly no more pressing problem before the country today than that of education, and the dissatisfaction of the teachers is an important element in it. We realize, of course, that we cannot solve this problem unaided, but at least we can start more people thinking about it and arouse public discussion, from which some helpful suggestions may come. For this reason we are not only running a series of articles on the question by educators, beginning with Dr. John Dewey, but are offering $2,000 in prizes for the best short articles from parents and teachers in answer to the question, What is the matter with teaching?

We are glad to give publicity to the fact that John Dewey is writing on education, and we are also glad to notify our readers that prize money to the extent of two thousand dollars is available. We are somewhat shocked, however, to find that the editors of the *Delineator* have convinced themselves by their statistical studies that the liberal migration out of the teaching profession is due to "dissatisfaction." The fact is that approximately two-thirds of those who give up teaching in the public schools do so because of the prospects of finding an inviting field for the exercise of their pedagogical skill in private establishments where they will be able to assume the responsibilities at once of superintendent and teacher.

As for the reduction in the percentage of college graduates entering the teaching profession, this is a natural mathematical consequence of the increase in the number of such graduates and the smaller increase in the number of teaching positions. The discussion takes on a more optimistic coloring if one turns the ratio around and asks, What percentage of teachers go into the profession today with broader training than that possessed by an earlier generation?

On the whole, when one receives a letter like that here quoted, one wonders whether improvement of the schools is the real motive for the campaign which is being launched.

SOME POLICIES OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

J. B. EDMONSON
University of Michigan
Secretary of the North Central Association
of Colleges and Secondary Schools

The policies and standards of the North Central Association of Colleges and Secondary Schools have been grossly misrepresented or misinterpreted in some quarters, with the result that a considerable amount of distrust and suspicion of the association has spread among teachers and school administrators, especially among members of boards of education. This misrepresentation or misinterpretation has led to innumerable questions, indicating a marked lack of understanding of the standards, aims, and policies of the association. The writer therefore wishes to call attention to certain specific mistakes in the interpretation of the standards for the accrediting of secondary schools.

The North Central Association is criticized because of the common belief that a high school will forfeit its membership in the association if more than thirty pupils are assigned to any section of classroom work. This is far from the truth, as the association does not limit classes to thirty pupils. The association *recommends* that the enrolment of class sections be approximately twenty-five, and the consensus of opinion of teachers, as revealed in Davis' study,[1] indicates that twenty-five is a desirable maximum. It is also true that the association urges that 150 pupil-hours of instruction a day be the maximum assignment to any teacher. However, the association recognizes in its practice that unusual teachers may handle recitation sections of more than thirty pupils without danger of loss in the efficiency of the instruction. It futher concedes that it is fre-

[1] *Proceedings of the Twenty-eighth Annual Meeting of the North Central Association of Colleges and Secondary Schools*, Part I, pp. 39–41. 1923.

quently necessary to have in a high school a limited number of classes of thirty, forty, or even forty-five pupils. These classes should be assigned to the more successful teachers, and care should be taken to prevent the overcrowding of classrooms. It has been the writer's observation that the large classes in many high schools are too frequently assigned to the inexperienced teachers of ninth-grade subjects, which practice is certainly not an example of the good management expected in schools seeking recognition by the North Central Association.

Another policy of the association that is frequently misinterpreted relates to the preparation of teachers of vocational and special subjects, such as music, art, physical training, domestic science, and the commercial branches. It appears to be the opinion of some that the association demands that these teachers have the same amount of training that is required of teachers of academic subjects. As a matter of fact, the association has never set up specific requirements for teachers of vocational subjects. It has limited its rulings governing teacher preparation to instructors in the academic fields.

The procedure in the determination of the pupil-teacher ratio is also commonly misunderstood. Apparently, there are many who think that only the teachers of the academic subjects are to be counted in determining this ratio. An examination of the standard with regard to the teaching load reveals the fact that all teachers, vocational or academic, as well as administrative and supervisory officers, may be counted as teachers in determining the pupil-teacher ratio. The section of the standard relating to this question reads: "For interpreting this standard, the principal, vice-principals, study-hall teachers, vocational advisers, librarians, and other supervisory officers may be counted as teachers for such portion of their time as they devote to the management of the high school. In addition, such clerks as aid in the administration of the high school may be counted on the basis of two full-time clerks for one full-time teacher."

Another erroneous opinion relative to the policies of the association is that the chairman of a state committee has the right to rule that a teacher who is not a college graduate or who lacks the required number of hours in education may be employed to teach

academic subjects in a high school approved by the North Central Association, provided he is able to show a "deserving" case. As a matter of fact, the association requires each school to make a special report on any teacher of academic subjects whose preparation is less than that demanded by the standards. While the association is interested in the recommendation of the state chairman, it does not obligate itself to accept his recommendation. The records of the association show that very few exceptions have been made to the requirement of college graduation or professional training, especially during the past few years. The writer does not know of any exceptions made at the last meeting of the association. In view of the present supply of qualified teachers, it would seem reasonable to expect that the association would be very slow to grant exceptions in the near future.

Some individuals are under the impression that the standards of the North Central Association have been formulated by a group of college professors who are out of touch with the practical situations that confront secondary-school principals. In considering this criticism, it is desirable to recall that the important changes that have been made in the standards in recent years have come as a result of referendum votes in which hundreds of high-school principals have participated. The criticism is further seen to be unfounded when one considers the personnel of the Commission on Secondary Schools and notes the number of high-school principals holding membership.

There are other unwarranted criticisms offered. For example, "the association is arbitrary in its enforcement of standards." This is usually the retort of an administrator whose school has been dropped for some gross violation of standards. It may be said that it is one of the policies of the association to give a school that has been continuously accredited for five years a year in which to correct deficiencies before it is forced to forfeit membership.

There also appears to be a question in the minds of some as to the tangible rewards of recognition by the association. It is, of course, common knowledge that the schools approved by the North Central Association constitute an honor group of schools, but such recognition does not appear to be sufficient reward for some. This

past year copies of the proceedings were sent to a large number of institutions outside the states included in the association. These institutions were asked to report any use made of the lists of schools as given in these proceedings. Some of the replies received from registrars are as follows:

Mount Holyoke College, South Hadley, Massachusetts.—The *Proceedings of the Thirtieth Annual Meeting of the North Central Association of Colleges and Secondary Schools*, which contains the list of accredited institutions, was received today. We are very grateful for this copy and shall be glad to have the name of this office placed on the permanent mailing list. Your reports will be of value to us in learning the rating of institutions in the Middle West. We shall not only use them in the office to a considerable extent, but in my work on the Advanced Standing Committee the information will be useful.

The University of Vermont, Burlington, Vermont.—The University of Vermont wishes to acknowledge with thanks the approved list of schools of the North Central Association. We refer to them in this office very frequently in connection with admissions and transfers. Accordingly, we are requesting that this office be placed on your permanent mailing list.

The Johns Hopkins University, Baltimore, Maryland.—Many thanks for the *Proceedings of the Thirtieth Annual Meeting of the North Central Association of Colleges and Secondary Schools*. In accordance with the notice appended to the report, I am writing to inform you that I rely entirely on the list published by the association for the admission of students coming from the North Central section. I shall appreciate your placing the name of the Johns Hopkins University on your permanent mailing list for further publications.

Trinity College, Hartford, Connecticut.—In reply to your request for information as to the use we make of the approved list of secondary schools, I would say that we use it whenever the question of accepting the certificate of a school in your territory arises.

Bethany College, Bethany, West Virginia.—Thank you for the *Proceedings of the Thirtieth Annual Meeting of the North Central Association of Colleges and Secondary Schools*, which we have just received. Bethany College uses the approved list of secondary schools in determining the acceptability of credits for those who apply for entrance. The list of higher institutions of the association is consulted with regard to credits offered for advanced standing, the presence of the college in this list having much to do with determining Bethany's attitude toward such credits.

Clark University, Worcester, Massachusetts.—I am pleased to state that we use the approved list of secondary schools of the North Central Association as a basis for the acceptance, without examination, of students presenting themselves outside of New England and the Atlantic states. The accredited list of higher institutions is used in connection with admission to the Graduate School, usually supplemented by reports from larger institutions which receive students from the same sources.

It is apparent that the North Central Association is the most generally recognized standardizing agency for high schools and colleges in the North Central states, if, indeed, it does not rank first in prestige in the entire United States. In the educational world, therefore, recognition by the North Central Association means the same as high ranking by Dun or Bradstreet in the field of finance and business.

The writer is convinced that the friends of the North Central Association should make a more determined effort to have the policies and achievements of the association understood by school-board members, teachers, and others interested in secondary and collegiate education. The association has made an invaluable contribution to the cause of secondary education in the North Central territory, and it is in a strategic position to make a more valuable contribution within the next few years.

THE JUNIOR HIGH SCHOOLS OF ATLANTA, GEORGIA

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An educational awakening.—The establishment of junior high schools in Atlanta is an essential feature of what may appropriately be called "a city's educational awakening." The junior high schools are a part of a comprehensive program intended to remedy what, in in 1920, were indeed deplorable school conditions. The immediate point of departure was a vigorous exposition of educational incompetency throughout the city revealed by a school survey in 1921–22, conducted by Professors G. D. Strayer and N. L. Engelhardt, investigators employed by Superintendent W. A. Sutton and the Atlanta Board of Education to survey the city's educational needs and to make recommendations for the expenditure of four million dollars, the amount of a bond issue authorized by referendum.

The bond issue of 1920 was itself the result of a growing educational consciousness that antedated the survey several years. Unlike most southern cities, the schools of which are organized on the 7-4 plan, Atlanta had followed the 8-4 plan for fifty years. Suddenly, in 1916, with little warning and practically no preliminary investigation or time for readjustment, the board of education decided to abandon the 8-4 plan and to substitute the 7-4 plan. The results were disastrous. Pupils of the seventh and eighth grades, thrown together in the ninth grade, came into the senior high schools sadly unprepared; in the emergency the high schools themselves, hostile to the shortening of the elementary course, were perhaps unduly rigorous in their demands. At any rate, the first-year classes in the high schools began to show a school mortality running as high as 34 per cent. This was during the years 1917–20.

Educational reform in the new city charter.—In 1918 Atlanta obtained a new charter from the legislature, two provisions of which are vital in the educational awakening. The board of education elected by the mayor and the general council was abandoned. In

its place was substituted a board of twelve members, one member elected from each of the wards of the city. The change undoubtedly meant a more progressive and far-seeing board. A second change, even more significant, was a radical modification in the control of school finances. Before 1918 the board of education had been entirely dependent on the municipal government for the apportionment and the expenditure of all school funds. Such fiscal dependence meant in Atlanta, as everywhere, that the whims, interests, and prejudices of the aldermen and the drifts of politics generally had baneful effects on the development of the schools. But the charter of 1918 made the board of education practically independent in its control of school finances. A 1921 amendment provided for the allotment to educational purposes of not less than 26 per cent of the total income of the city of Atlanta from all sources. In addition, $200,000 is received from the state and about $30,000 from Smith-Hughes funds. These sources provide a total school income of $3,000,000, for the disbursement of which the school board has full authority.

School conditions revealed by the survey.—The smaller board, elective and directly responsible to the people, and the free control of school funds amounting to $3,000,000 annually, as well as the $4,000,000 bond issue for school buildings, antedated the survey of 1921. Of the revelations of that survey, only a few typical facts may be given here. Atlanta had been devoting to school purposes a smaller proportion of its total municipal expenditures than were other cities comparable in size; it ranked eighteenth in a group of twenty cities of approximately 250,000 in population, spending $4.28 per inhabitant as compared with an average of $6.86 for twenty cities and $2.88 per $1,000 of real wealth as compared with an average of $4.74 for the same twenty cities. It ranked thirty-ninth in a list of forty comparable cities in tax rate per $1,000 for municipal purposes, including schools. The survey revealed very bad conditions in the case of the school plants. A perfect score on the Strayer-Engelhardt Score Card for City School Buildings is 165 points. The four senior high schools of Atlanta averaged 48 points; the forty-four elementary schools for white children averaged 69 points; the sixteen elementary schools for colored children averaged 33 points, with seven

of these schools for negroes scoring less than 20 points. The survey showed further that some of the school buildings were not adequately protected against fire; that sanitation was extremely bad; that many school sites had been chosen without foresight, allowing no playground space except the city streets; and that many of the newer buildings were inadequately planned, poorly built, and in bad repair. Many elementary-school children were housed in temporary and unsatisfactory annexes; 13 per cent of the buildings for white pupils had no electric lights; and in 57.2 per cent of the buildings for white children the general equipment was below standard. On the basis of 1,000 points for a perfect score—allowing 125 points for school site, 165 points for building, 280 points for service system, 290 points for classrooms, and 140 points for special rooms—the elementary schools of Atlanta ranged between 666 points for the best and 159 for the poorest, with a score of 475 for the median. The four senior high schools on the same 1,000-point basis were allotted scores of 508, 240, 198, and 193, respectively. Two thousand white children were in temporary quarters. Sixty-three per cent of the pupils were older than normal age for their grades—truly a depressing state of retardation.

The place of the junior high school in the educational awakening.—In 1922, with a school board elected by wards and directly responsible to the people, with a school fiscal policy independent of political influences, with an annual school fund of $3,000,000 and a $4,000,000 bond issue, and with an aroused public opinion, Atlanta set out definitely upon her educational reform. The reformation extended throughout the entire school system, but consideration in this article is limited to a few of the essential features which pertain to the junior high schools.

The school survey recommended the 6-3-3 plan, preceded by the kindergarten. Wisely looking forward to the city's needs in twenty years, the experts estimated that, considering the normal growth in population, six junior high schools would be needed in 1940 to house all the seventh-, eighth-, and ninth-grade pupils. Atlanta is apparently the only city of 250,000 population, except possibly San Antonio, Texas, which has changed completely at one time to the 6-3-3 plan. Moreover, southern states like Texas and Oklahoma are

very much more like northern states in their educational outlook than are most of the southern states east of the Mississippi. It is therefore all the more creditable that Atlanta, with a very few sister cities of the Southeast, like Jacksonville, Florida, has definitely taken the lead in the educational reforms that center in the junior high school.

Of the six junior high schools which Atlanta will need in 1940, five are already in operation. Three are in new buildings erected since 1922; one is temporarily housed in a fairly adequate elementary-school building; and one, for colored pupils, is in an admirable new combination junior-senior high school building. From her $4,000,000 Atlanta erected nine new elementary schools, three new junior high schools, one junior-senior high school for colored pupils, and two senior high schools for white pupils and built extensive annexes to three other school plants. Fifteen new school buildings and three annexes were secured from the bond issue.

The education of public opinion.—It must not be inferred that the program of intermediate schools secured the instant and unanimous support of public opinion. The fact is that with great skill the school leadership definitely prepared public opinion. The bond issue for better schools was passed before the survey. Information with regard to the survey was tactfully extended throughout the city. The services of the survey experts were utilized to the full in addressing more than fifty assemblies ranging from parent-teacher associations to the Chamber of Commerce. The superintendent of schools himself, having the advantage of unusual personal popularity among his constituents, was active in laying the foundations for the idea of the intermediate schools before the actual building program was begun. The experience of Atlanta shows that a city of 250,000 population is likely to accept without undue reservations the recommendations of efficient educational leaders, particularly if they have the unanimous backing of a small school board directly responsible to the people and are wise enough frankly to present the facts as revealed by unquestioned experts. Too high commendation can hardly be extended for the extremely wise, tactful, and thorough preparation of the public mind which antedated the launching of the junior high school program.

The present status of the junior high school buildings.—Faced with the necessity of providing accommodations for 8,400 intermediate-school children (6,500 white and 1,900 colored pupils in the seventh, eighth, and ninth grades), the school authorities wisely chose the unit expansible plan to begin their junior high school building program. They erected in each case the central portion of the final building, with provision for additions in the form of large wings which will ultimately double the capacity of the new plants. Wide, open spaces were secured, providing ample room for playgrounds, the smallest of which comprises eight acres, and the largest twelve. When Atlanta sees fit to provide another bond issue, the necessary extensions can readily be made, and ultimately the intermediate-school plants will be adequate in size and fully equipped.

The pressing need, the limited funds, and the ultimate goal, as well as the fact that an extensive program for twenty years must move slowly in its initial stages, must be taken into account in considering the present inadequacy of the junior high school plants. Good so far as it goes, each of the buildings is at present supplemented by from fourteen to twenty classroom units in portable wooden structures. Without exception, the erection of gymnasiums and swimming pools has been planned but postponed. Adequate assembly halls are planned but not built; shops are small and so far meagerly equipped; there are no libraries. In short, many of the features by which a modern intermediate school differentiates its work from that of the old elementary school are at present entirely lacking in Atlanta; they will come ultimately. The observer is impressed by the incalculable advantages possessed by fully equipped junior high schools like those of Detroit, Michigan, or Oklahoma City, Oklahoma.

The teaching staff.—Concerning the teaching staff of Atlanta's intermediate schools there is one outstanding fact: one-half of the teachers are men, a proportion rarely, if ever, reached in any junior or senior high school of the country.

The same educational foresight which provided a staff of 137 men and 139 women to teach 8,400 adolescent boys and girls selected the individuals of the teaching staff with great care, demanding of candidates the same educational qualifications that are required of

senior high school teachers and compensating them on exactly the same salary scale. The junior high school teachers are graduates of the best institutions of the North and South; 5 per cent are normal-school graduates; 95 per cent are college or university graduates; and all seem to be thoroughly imbued with the true professional spirit. A sample of the foresight with which the intermediate schools were launched is found in the extended trip of observation made by Assistant Superintendent H. Reid Hunter, in charge of secondary education, and the junior high school principals. Accompanied by two of the supervisors, these men were sent by the board of education to visit the junior high schools of Cleveland, Detroit, Columbus, and Cincinnati. In these cities they observed junior high schools in actual operation. Each of the observers, concentrating on some field for which he was especially fitted, made it his business to study thoroughly plans, courses of study, materials and methods, policies, organization, and equipment. Then, in daily conferences, each brought to the others the results of his observations and reflections. Thus the chief officers of Atlanta's intermediate schools worked out their ideas together, with time for deliberation and consultation, and in close contact both with the theory of the junior high school and with the actual practice in representative schools. This does not mean that the intermediate schools of Atlanta are identical in all respects. It does mean that the schools have a fairly consistent and satisfactory understanding of what the intermediate schools ought to accomplish for their city.

The program of studies, 1925–26.—The program, uniform for all pupils throughout the first three semesters, changes to the multiple curriculum in the middle of the eighth grade. During a part of the seventh grade the geography period is given over to a study of occupations. Music is taught once a week on a sliding schedule, the class period of various subjects being omitted in turn, a provision which continues throughout the eighth and the ninth grades. Each school has woodworking, electrical, metal, and printing shops. The course of study itself is apparently progressive, offering a uniform curriculum throughout the first half of the junior high school, enriched, as compared with the old elementary-school practice, by physical education, by music and art, by work in shops and household arts, and

SEVENTH GRADE

First Semester		Second Semester	
Subject	Number of Periods a Week	Subject	Number of Periods a Week
English	5	English	5
Geography	5	United States history	5
Mathematics	5	Mathematics	5
Spelling and penmanship	2½	Spelling and penmanship	2½
Health education	5	Health education	5
Music	1	Music	1
Household arts (girls)	5	Household arts (girls)	5
Manual arts (boys)	5	Manual arts (boys)	5
Art	2½	Art	2½

EIGHTH GRADE

First Semester		Second Semester	
Subject	Number of Periods a Week	Subject	Number of Periods a Week
English	5	English	5
United States history	5	Community civics	5
Mathematics	5	Mathematics	5
Health education	2½	Health education	2½
Music	1	Music	1
General science	5	General science	5
Business practice	2½	Electives:	
Household arts	5	General course:	
Manual arts	5	Latin or French	5
		Art	2½
		Household arts	2½
		Manual arts	2½
		Commercial course:	
		Business practice and spelling	5
		Commercial art	3 or
		Household arts	3 or
		Manual arts	3
		Technical course:	
		Shops	5
		Drawing or art	2½
		Household arts course:	
		Household arts	5
		Art	3

NINTH GRADE

GENERAL COURSE

Subject	Number of Periods a Week
English	5
Mathematics	5
Community civics and elementary economics	5
Health education	2½
Music	1
Latin or French	5
Electives:	
Biology	5 or
Art	2½
Household arts or manual arts	2½
Typewriting	5

COMMERCIAL COURSE

Subject	Number of Periods a Week
English	5
Mathematics	4 or 5
Community civics and elementary economics	5
Health education	2
Music	1
Typewriting	5
Electives:	
Business training	5
Biology	5 or
Commercial art	2½
Manual arts	2½

TECHNICAL COURSE

Subject	Number of Periods a Week
English	5
Mathematics	5
Social science	5
Health education	2½
Music	1
Manual arts	5
Electives:	
Biology	5
Art or drawing	2½
Typewriting	5

HOUSEHOLD ARTS COURSE

Subject	Number of Periods a Week
English	5
Mathematics	5
Social science	5
Health education	2
Music	1
Household arts	5
Electives:	
Biology	5 or
Art	2½
Typewriting	5

by business education in the eighth grade. Elections in the eighth grade parallel the chief courses for higher instruction offered in the senior high school. Latin and French are offered, beginning in the eighth grade. This program indicates on paper commendable departures from the traditional work for the upper grades. The program is enriched, adapted to differing capacities and needs, and correlated with both the industries of the city and the courses offered in the senior high school.

Correlation of subjects.—Atlanta recognizes the fundamental weakness of departmental teaching carried to the extreme. The

junior high schools have endeavored to create a series of educational experiences unified in purpose and definitely related to one another. Whenever possible, the various subjects are made to correlate their activities. For example, the study of typewriting is associated closely with spelling and punctuation; Latin, English, history, and geography are bound closely together in the pupils' experiences; while general science, biology, and hygiene are correlated. Drawing and shop work, dressmaking and designing, printing and English, vocations and shop work—these and similar combinations serve to impress teachers and pupils alike with the fundamental unity of a well-organized junior high school education.

Ability grouping.—Perhaps in no other of the recognized functions of the junior high school have the Atlanta teachers progressed farther than in their methods of breaking up rigid uniformity of instruction. The extent to which ability grouping is carried is suggested by the record card which each teacher fills out each quarter for her classes. The pupils are grouped in "fast," "average," and "slow" classes, and a teacher may have some classes of each category; the fast classes are further classified as F.F (the fastest of the fast), M.F. (the medium of the fast), or S.F. (the slowest of the fast). Similar subdivisions are made of the average and the slow groups.

Of course, such refinements of grouping are possible only in a large school with many pupils in all the grades. The assembling of relatively large numbers of seventh-, eighth-, and ninth-grade pupils, making possible individualization of instruction, is a major improvement of the junior high school. Testimony of Atlanta teachers is that various class groups shade gradually into those just above and below. The slowest groups of the fast classes are approximately the same in ability as the fastest groups of the average classes. At first thought, the machinery for determining such minute distinctions might seem to be complex and confusing, but apparently the Atlanta schools have evolved a reliable and economical plan for determining groups. Two items are considered in the seventh-grade grouping: (1) school records from the sixth grade and (2) intelligence quotients, determined by a group intelligence test, together with chronological ages and achievement ages. Reclassification is effected at the end of the first quarter of the seventh grade by using the com-

bined judgments of all the teachers of whose classes the pupils have been members. In every doubtful case the significance of the I.Q. is subordinated, the judgments of the teachers being considered of first importance. Wide conflicts in such data are rare. For example, 106 somewhat doubtful seventh-grade cases in the Joe Brown Junior High School were re-rated on the basis of intelligence quotients and on the basis of teachers' judgments. One hundred of the 106 re-ratings agreed in I.Q. and other data with the majority of the teachers' judgments.

The relation between ability grouping and election of courses is somewhat roughly indicated by the following facts. More than 50 per cent of the pupils in the academic course come from the fast groups, about 40 per cent from the average groups, and a small percentage from the slow groups. About 15 per cent of the pupils who elect the commercial course come from the fast groups, while more than 30 per cent of the pupils in the technical courses are from the slow groups.

Guidance—educational and vocational.—Guidance in all its phases rests on the systematic rating of pupils through the testing and grouping processes just described. The machinery of guidance differs somewhat in the various schools of Atlanta. In one of the smaller schools the guidance program is headed by the principal with the assistance of two counselors, a man and a woman, each of whom has two free periods daily for guidance duties. In the largest school the assistant principal is the head of the guidance work, devoting fifteen hours of the week to such duties and supervising the work of six counselors, a man and a woman guidance officer for each of the three grades, all of whom are relieved of a part of their class duties. The counselors help pupils who are in trouble scholastically or otherwise. They sift each difficulty to its causes, suggest remedies, make adjustments in grouping, and help in curricular choices.

Curricular choices are determined by the preferences of the pupils themselves, the desires of the parents, and the judgment of the school officers. Appropriate blanks are filled out by pupils and parents. During the seventh grade a nine-week course in vocational civics is given. With vocational counselors various groups visit the senior high schools of the city. Moreover, the seventh-grade

teacher who gives the course in vocations is in some cases the vocational counselor of the seventh grade, thus making her judgments concerning her pupils doubly reliable. In addition, each home-room teacher is asked to make suggestions concerning doubtful cases. For her acquaintance with the pupils' possibilities, a so-called "home-room self-governing period" is devised, with a varied program of group and personal conferences. The guidance thus described is supplemented by a Life-Career Club, which operates as one of the extra-curricular activities. Plans are being made for a series of graded life-career clubs, open to the pupils of the seventh, eighth, and ninth grades, respectively.

The more strictly vocational guidance for pupils who must leave school early begins with the accumulation of data on cumulative guidance cards. Such pupils seek interviews with their respective counselors and in due time make their way to the school employment office in the center of the city. The officer in charge, with the aid of information from the guidance cards and from telephone conversations with the applicants' counselors, is able to direct the children wisely to suitable positions. In the junior high schools vocational objectives are held before the pupils by continuous publicity campaigns, including elaborate posters, assembly talks, and guidance-period discussions. One week each year is set aside as vocational-guidance week. However, it is the purpose of all this vocational guidance to set forth the difficulties and limitations of early entrance into industry or business, to show the ultimate value of even the small amount of vocational training offered by the junior high schools, and to stress the much greater value of more extended training in the senior high schools of the city. A visitor is impressed by the skill with which actual vocational guidance and placement are conducted for the pupils who must leave school. At the same time the young people are made to realize the value of remaining in school as long as possible.

Differentiating instruction.—In all the schools, then, by means of a sensible program of pupils' records, testing, try-out, and shifting, the instructional groups are classified according to tastes and capacities. In general, the fast groups are given an enriched course in each subject; the average groups are given what may be called the

usual course; and the slow groups are given the minimal essentials, consisting of the rudiments or basal necessities of the respective subjects. Where the schedule-making permits, a pupil may be in a slow group in mathematics, in an average group in English, and in a fast group in Latin. This is particularly true in schools which depend far more on the achievement quotient than on the intelligence quotient as a classifying agency. An example may indicate the procedure with fast, average, and slow classes. The fast groups of the seventh grade cover the seventh-, eighth-, and ninth-grade spelling lists very rapidly; practically all finish spelling as a separate subject in the seventh grade, some of them early in the eighth grade, and thereafter are not taught spelling. The seventh-grade average groups cover the sixth-, seventh-, and eighth-grade lists and continue to receive spelling instruction in the eighth grade if necessary. The seventh-grade slow groups go back to the fourth-, fifth-, and sixth-grade lists; for them work on the seventh- and eighth-grade lists may be postponed to the eighth grade.

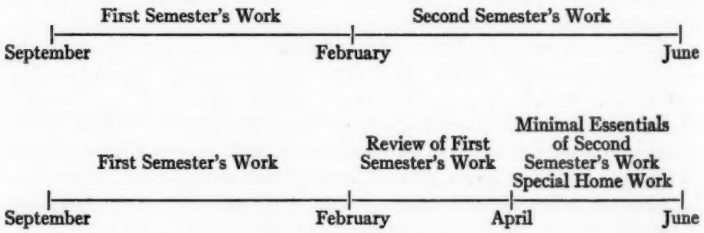
One teacher, describing the differentiation of instruction in mathematics, writes as follows:

> Since the same text and the same course of study are provided for all students in mathematics, to meet the needs of the slow and the fast ability groups, differentiation is made in the methods of handling the subject matter and in the amount and kind of material offered.
>
> For the fast group, the teacher remains somewhat in the background and allows the pupils to use their own resourcefulness in attacking new work. Too much explanation kills all initiative on the part of the pupils and hinders their best development. The slow group, on the other hand, receives patient and constant repetition and explanation in the simplest of language. The pupils are kept confident by proceeding slowly but surely.
>
> The amount and kind of material offered to the groups differ widely. In the case of the fast group, extensive use of supplementary material is made; in addition to all the work in the text, the making of posters, house-plans, tax budgets, interest tables, and designs is used to advantage. The pupils of this group are encouraged to use any and all of the mathematical tools at their command in the solution of assigned problems. The pupils of the slow group are held responsible for minimum essentials only. Constant drill in the form of standardized practice material is the salvation of this group in mathematics.

Provisions for retarded pupils.—Two types of provision are made for pupils who are seriously retarded, the number of whom has been

materially increased in Atlanta by a reinvigorated enforcement of the compulsory-attendance law. There are three ungraded classes in one of the centrally located junior high schools, two for boys and one for girls. To these classes are sent from all over the city overage pupils, all of whom are more than fourteen years of age and mature in stature and strength and whose I.Q.'s are in the neighborhood of 70. To this distinctly subnormal group, numbering forty-seven in 1924, are given extensive shop experiences and very elementary academic work. These classes receive boys and girls, many of them of fifth-grade standing or lower, promoted from twenty-two ungraded classes in the elementary schools. In addition to these ungraded classes, centrally located for the entire city, each junior high school maintains an opportunity class. In it are gathered borderline cases, pupils who vary from the third grade to the sixth in educational age and from 70 to 80 in I.Q., as determined by the Binet test. In one school this class is rotated among seven teachers of the seventh grade. In another school all of the class, twenty-five in number, passed the seventh-grade examination in all subjects. In another school, two opportunity classes are taught by two teachers, in order to provide some departmentalization. Gathered here are retarded children with I.Q.'s from 73 to 88, mental ages from 10.4 to 14.3, and chronological ages over fourteen years.

An idea of the work in preventing retardation may be gained from the following graphic representation which indicates the treatment given to one class of twenty-six pupils who had failed in the first semester of eighth-grade mathematics. The first line represents



the eighth-grade work of a class in full standing; the second line, the work of the retarded pupils. The latter, required to repeat for only

one quarter, were given advanced work from April to June with the understanding that by passing the examinations given in the regular sections, they would be given credit for an entire year's work. During the period from April to June the class was given only the minimals (for example, one method of computing interest instead of several methods). Minimals were accompanied by special home work throughout the last quarter of the year. Half of the class of twenty-six, through such sensible provisions, passed into the ninth grade with full standing in mathematics.

Student self-government.—The Atlanta schools have avoided schemes of pupil self-government organized by school officers and thrust upon student bodies. Instead, various plans have been worked out for different schools as the needs made themselves manifest. One school has senior councils made up of ninth-grade pupils, one boy counselor and one girl counselor for each seventh-grade section, chosen by the principal from among the natural leaders of the class. The boys' council meets on Thursday, the girls' on Tuesday, sponsored by the faculty pupil-activities director. Each ninth-grade girl counselor meets with the girls of her seventh-grade group on Tuesday, and each boy counselor with the boys of his seventh-grade group on Friday. There are also frequent informal meetings outside of school time. The function of the councils is to foster good citizenship in every possible way, promoting among the pupils the idea that they are citizens of the junior high school just as their parents are citizens of Atlanta.

The Co-operative Organization is made up of sixty-six so-called "co-operators," one boy and one girl elected from each advisory group. The term "advisory" is preferred to the term "home room" because of a desire to emphasize the "adviser" rather than the "teacher" relationship between each instructor and the pupils with whom she is in most intimate contact. An adviser is not the teacher of her advisory group in any subject. Freed from all instructional relationships with her advisees, she is supposed to be able to take a more objective attitude toward their particular problems and difficulties. The advisory groups begin the day with an eighteen-minute period. This period is not routinized on Monday and Friday. Tuesday is Thrift Day; on Wednesday the period is used by the class to

instruct their representatives in the Co-operative Organization, and on Thursday the co-operators bring back reports of the co-operative meetings, which must be acceptable to the advisory groups.

The Co-operative Organization, then, elected by the advisory groups, meets on a sliding schedule in the presence of the director of pupil activities and two teacher "co-operators." Free speech is held at a premium; the co-operators are not held responsible outside the Co-operative Organization for what they may say about any matters pertaining to the school. The organization is not a regulative or legislative group; it makes and executes no laws. It does, however, initiate legislation, and each Wednesday the representatives carry back the proposals to their advisory groups, the legislative bodies. To them, all proposals have to be acceptable. If a representative cannot swing his group to his way of thinking on any issue, he may resign or he may be recalled.

So far as possible, the administration of student life is carried on through committees and squads elected by the Co-operative Organization. For example, the Traffic Committee, the Thrift Committee, the Lunch Committee, the Attendance Committee, the School-Spirit Committee, the House and Grounds Committee, and several other committees all have their duties to perform. The committees are usually five in membership, but each of the more important committees, like the Lunch and Traffic Committees, is in general charge of large squads of helpers. The committees draw up regulations in their respective spheres, which are executed by the various squads. This valuable plan of legislative, administrative, and even judicial activities affecting school life is duplicated with appropriate modifications in all the Atlanta junior high schools.

Physical education and athletics.—Lack of gymnasiums is not especially serious in Georgia, because outdoor sports and gymnastic training are possible through almost the entire school year. Supervised play is a regular part of the school program for all physically capable children. Physical education for boys begins with a ten-minute period of military tactics, followed by ten minutes of formal gymnastics in groups and a twenty-minute play period. The instructor makes certain that the boys play all sorts of games, although the formal side is not stressed. A somewhat similar routine

is followed by the girls' sections. Correlated with supervised play is the work of the so-called ninth-grade "leaders' clubs," one of boys, one of girls, members of which are trained to take charge of seventh-grade sections, working, of course, under the supervision of the physical director and conducting exercises planned by him. Supervised athletics are supplemented by extensive inter-room and inter-class contests—football, basket ball, and baseball for boys; baseball, roller skating, tennis, soccer, and basket ball for girls. Stress is placed on intersectional contests, seventh-grade groups playing against seventh-grade groups. In some schools plans are on foot to classify participants in sports on the basis of age and weight.

Avocational interests.—Space does not permit discussion of the one hundred and more different types of extra-curricular clubs, duplicated to a certain extent in various junior high schools but varying in number from thirty in the smallest school to fifty in the largest school. The interests range through life-career clubs, floriculture, mandolin and guitar, Spanish, debating, dramatics, checkers, scrapbooks, book lovers, metal craft, woodcraft, kodak, radio, wireless, home-making, French, toy-making, and many others. Each teacher, sponsor for one or two clubs, together with her group, works out an interesting and varied program of activities.

The junior high schools of Atlanta are a significant part of a thoroughgoing educational awakening in that city. Distinctly "self-contained units for adolescent education," they attempt to provide both cultural and vocational experiences for children who must leave school early, and at the same time they multiply inducements for all to advance to the senior high school. By improved housing, carefully selected teachers, and flexible courses of study; by ability grouping, differentiated instruction, and guidance, both educational and vocational; and by extensive provisions for pupil participation in school government and for avocational interests, the junior high schools appear to have won the hearty approval of the children, the parents, and the public. One citizen of Atlanta remarked to the writer, "We cannot think of our school system now without our junior high schools."

DO OUR VOCATIONAL SCHOOLS PREPARE FOR VOCATIONS?

THOMAS DIAMOND
University of Michigan

Many teachers have rather definite opinions with regard to what happens to our young people after they leave school. As these opinions are rarely based on legitimate evidence, they are not likely to be convincing to anyone who may be called upon to modify a school program in order to meet the existing conditions more adequately.

With a view to providing some reliable data regarding the young people who go to work, an examination was made of the report for 1923–24 of the placement department of a prominent vocational school. While the group considered is small, it is believed that it provides a fair cross section of conditions in general.

It should be said that the study here summarized was carried on by a placement officer who prepared his report without knowing that an analysis of it was to be made. It should be understood also that his major job is teaching and that his duties as a placement officer are secondary; hence the relatively small number of placements from the school during the year.

It is also desirable at this point to refer to the limitations of the study, lest unwarranted generalizations be made. In the first place, there are only 132 pupils considered, all boys. The placements listed include only those made directly through the placement department. Many other pupils were placed by the teachers, while still others obtained positions by personal application. Another limiting factor is that both part-time and all-day pupils are included. Finally, a number of temporary jobs were filled by part-time pupils, thus increasing the number of separations from the job.

The data in Table I deal with the question of the range of occupations into which young workers go. It was found that the place-

ments were made in eleven different types of work. The numbers going into each of these are shown in the table.

An interesting question is raised by the data in Table I: Are we providing in our schools the training necessary to prepare our young people for active participation in the commercial and industrial activities in which they are called upon to take a part? It has long been contended that this is not the function of the regular public schools, but surely it ought to be one of the aims of a vocational school. If it is conceded that "preparing pupils to enter an occupation or to progress in the occupation they enter" is an aim of the

TABLE I

PLACEMENTS MADE DURING 1923–24

Type of Work	Number of Boys
Stores	33
Common labor and general factory	25
Delivery	23
Furniture factories	20
Office	7
Drafting	7
Printing	5
Metal trades	5
Electrical work	4
Baker	2
Garage	1
Total	132

vocational school, then the data presented should cause us to examine the curriculums of vocational schools for the purpose of discovering whether we are presenting the type of training required by the greatest number.

It will be noted that 101 of the 132 individuals were placed in four types of occupations. Since this large majority enter only four types of work, it would seem reasonable, in view of the expressed purpose of the training given, to expect that the school should be placing considerable stress on training for these types. Table II reveals the extent to which this is being done. The relation which exists between the training the pupils receive and the jobs they enter is brought out in a striking manner.

It is seen that only twenty-three of the 132 pupils entered occupations related to the work for which they were trained in the school. The suggestion is made that this is due to the fact that a young person enters the first job available regardless of his training, that the job taken is usually a juvenile job, and that when this job is outgrown, the young person enters an occupation in which he can make use of his training. While this may be true, there is no evidence available to support it. So long as there is any doubt in the matter we cannot continue to justify the expenditure of large sums of public money on training people for occupations which do not

TABLE II

RELATION OF PLACEMENT TO TYPE OF TRAINING RECEIVED

Type of Course Taken	Number of Placements from Course	Number Placed in Allied Jobs
Auto mechanics	18	.....
Salesmanship	2	.....
Printing	22	5
Metal trades	15	3
Drawing	16	5
Commercial work	10	.....
Furniture design	2	.....
Furniture crafts, finishing, cabinet work, etc.	38	8
Art training	3	.....
Electrical work	5	2
Not reported	1	.....
Total	132	23

absorb them. It behooves each teacher in vocational work, therefore, to examine his product in order that he may know whether he is giving training for a specific occupation or whether he is merely providing training which he hopes will function in some occupation.

A question which should interest those concerned with the vocational guidance of youth relates to the length of time young people remain in a job. Table III emphasizes a fact which has been brought out in a number of investigations, namely, that there is a lack of stability in our young people with regard to their work. This instability has been explained by the fact that young people are passing through a period of adjustment. This explanation may be sound, but it raises the question, Are we justified in giving a person specific

trade training before he has become adjusted and has decided upon his life-work?

There is a generally accepted idea that the greater the scholastic attainment of the pupil, the more likely he is to stay in a job. There is another idea which is just as generally accepted, namely, that the individual who has little academic training does not usually have sufficient intelligence to know that he ought to change his job. As

TABLE III

LENGTH OF TIME BOYS REMAIN IN FIRST JOB

Length of Service	Number of Boys
Up to 3 hours	2
From 1 day to 1 week	36
From 1 week to 1 month	25
From 1 month to 6 months	33
From 6 months to 1 year	13
Not changed from time of placement	23
Total	132

TABLE IV

GRADE ATTAINMENT OF BOYS CONSIDERED

Grade	Number of Boys
Ungraded	2
VI	4
VII	11
VIII	52
IX	32
X	18
XI	5
Unknown	8
Total	132

may be seen from Table IV, there is no evidence to show that either assumption is correct. Of the total group, the largest number either were in the eighth grade or had completed it, with smaller numbers tapering off to the upper and lower levels, indicating a fairly average distribution. Of a group of 132, over 80 per cent of whom were in the eighth grade or above it, 82.6 per cent changed their jobs at least once during the year.

Table IV seems to indicate that those who believe that only

people who are unable to profit from regular school work ever think of attending a vocational school may not have a foundation of fact for their belief. As a matter of fact, the average grade attained is relatively high when considered in the light of the academic requirements in many of the jobs entered. This merely emphasizes the fact that there seem to be some members of society who actually choose to go into industry in spite of the fact that their mentality is high enough to enable them to go through high school at least.

It has been suggested in the discussion of Table IV that there is little correlation between the grade attainment of a young worker and the length of time he remains in a job. This is emphasized further in Table V, which shows the grades reached by the individuals

TABLE V

GRADE ATTAINMENT OF BOYS WHO REMAINED IN ORIGINAL JOBS

Grade	Number of Boys
Ungraded	2
VII	1
VIII	9
IX	4
X	6
Unknown	1
Total	23

who remained in their original jobs. As there are again more than 80 per cent in the eighth grade or above it, we must conclude that little difference in grade attainment exists between those who change their jobs and those who remain in their jobs.

Table VI contains a summary of the reasons for the changes in jobs. The figures give only a very general idea of the cause of the constant turnover in juvenile labor, as many of the reasons given may be interpreted in more than one way. The data are of interest, however, since they give some idea of what the young people believe to be their reasons for changing. Seventy-five of the 108 were placed in other positions, the remainder having been lost sight of or being still out of work when this report was prepared.

A question may arise with regard to the value of these changes from a financial point of view. While the figures in Table VII do not

show an overwhelming financial gain as a result of the changes, it must be remembered that those who changed jobs and received less

TABLE VI

REASONS FOR LEAVING JOBS IN THE CASE OF 108 BOYS

Reason	Number of Boys
Temporary job	24
Work slack	16
Didn't like work	15
Better job	12
Not enough pay	7
Discharged	6
Didn't like boss	5
Family objected to job	3
Left to go to school	2
Leaving town (pupil)	2
Going out of business (employer)	2
Change from part-time to all-day work	2
Going to cut wages	2
Miscellaneous	8
Unknown	2
Total	108

TABLE VII

WAGE CHANGES AS RESULT OF CHANGING JOBS

Number of Cents Increase per Hour	Number of Boys
20	3
15	4
10	6
9	4
5	10
1–18	18
0	9
− 5	1
−10	5
−15	2
−20	1
Total	63

pay may have made the financial sacrifice in order to gain some future advantage in a trade or occupation where promotion was possible. However, when judged from a money standard, the value of

the changes is questionable. Reports received from seventeen individuals who stayed in their original jobs indicate, curiously enough, that it is just about as unprofitable to stay in one place as it is to move. Six received no increase in wages, and eleven received increases varying from two to fourteen cents an hour.

It is seen that the monetary return for changing jobs is not great. It is equally obvious, however, that a person does not gain much by staying in one place. Because of these conditions, any argument for a boy's changing or keeping his job should be based entirely on his interest in it, his adaptability to it, and the future prospects for advancement.

It is not the purpose of this article to criticize any one school. It is believed, however, that the situations indicated by some of the figures are more common in our vocational classes than is even suspected by those in charge. Because of this, it is suggested that each vocational teacher investigate the following questions in so far as they apply to his particular department and bring them up for discussion in faculty meetings:

1. Are we providing in our vocational schools the training necessary to prepare our pupils for the occupations they actually enter?

2. Do the graduates of our departments make any considerable use of the things they learn?

3. When we discover the occupations into which a majority of our pupils go, are we justified in changing our curriculums in order to train for these occupations?

4. Can we afford to train people for vocations which do not absorb them?

5. Do the young people who go out as errand boys or take other juvenile jobs return to the work for which they are trained after they have become adjusted to industrial or commercial conditions?

6. Do we place before our prospective graduates the value of permanency in a position?

7. Do we know how permanent our pupils are after they leave us?

8. Can we justify frequent changes of employment on the basis of increased financial return?

MAKING A LOCAL COMPOSITION SCALE

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There is a wide and increasing demand for local English composition scales. When the purpose is merely to measure objectively the general merit of pupils' writings, this demand is unwarranted, for general-merit scales already exist which local instruments are not likely to surpass in refinement, reliability, or general usefulness. There probably is enough evidence, however, that a local composition scale increases pupil stimulation to cause each school, or at least each school system, to feel justified in devising one. Even though it will probably lack, to some extent, the reliability of the standard scales now available, its local character and authorship may incite among some pupils an interest and an urge which standard scales do not always arouse. For careful results and for comparison with other schools, English teachers will still need standardized scales; but, for purposes of pupil motivation, local measuring devices may be justified.

If local scales are to be made, they should be made well. Haphazard approximations not only defeat their own purposes but undermine the teacher's respect for valid scales. A local scale may lack the refinement and reliability of standard scales and yet be neither spurious nor unjustified. A quack scale is one which is based on unsound principles, which is built by unscientific methods, or which makes claims that it cannot substantiate. The purpose of this article is to explain how a valid local composition scale may be built.

It is not worth while for less than ten teachers to undertake to derive a composition scale; probable errors of judgment will be too significant. Every additional trained scorer will increase the reliability of the completed scale. The best standard scales represent the median judgment of from one hundred to two hundred trained scorers. Ten teachers, however, whose judgments are known

to be reliable can build a worth-while scale for local use. Large schools will have in them enough English teachers to build their own scales. Several small schools may co-operate in devising one, or the English teachers of a district or county may wish to devote professional meetings to such a project.

Teachers without training and experience in educational statistics should not try to build a composition scale from bedrock. They can start with the composition values that have already been scientifically established. The Hillegas scale or one of its derivatives will serve best.[1]

The first step in building a local composition scale is for each teacher to learn to use a standard scale reliably. It is advisable to choose one which is accompanied by sets of practice exercises.[2]

The scale itself should first be studied to understand why each sample was given the value assigned to it. Teachers should discuss the merits and defects of each sample for the purpose of arriving at a common standard of composition merit. When he has become thoroughly familiar with the scale, each teacher should score privately a set of practice themes. Each practice theme should be assigned the value of that scale specimen to which it most nearly corresponds in general composition merit. This done, each teacher should turn to the score key and find the true scores of the practice samples. He should compute the amount of his deviation from the true score on each theme, total the deviations, and divide the sum by the number of practice samples scored. The quotient will be his average deviation (A.D.). It will show him how erratic his judgment is. Half of his

[1] The Hillegas Scale for Measurement of English Composition by Young People is published by Teachers College, Columbia University, New York City. For present purposes more useful refinements of the Hillegas scale are Trabue's Nassau County Supplement to the Hillegas Scale, published by Teachers College, Columbia University; Thorndike's Extension of the Hillegas Scale, published by Teachers College, Columbia University; Hudelson's English Composition Scale, revised edition, published by the World Book Company, Yonkers-on-Hudson, New York; and Hudelson's Typical Composition Ability Scale, published by the Public School Publishing Company, Bloomington, Illinois. For a critical evaluation of these and all other English composition scales, see Hudelson's *English Composition: Its Aims, Methods, and Measurement* (Public School Publishing Company), chap. iv.

[2] Practice exercises are available for the Thorndike scale and the two Hudelson scales.

deviations will be within the range of his A.D., and half outside. On the Trabue scale and on both Hudelson scales the average annual pupil progress in composition is approximately 0.45. One can hardly be called a reliable judge of general composition merit until he is able to score at least one-half of his pupils' themes within a composition year of where they belong and all of them within two composition years of their true values. This means that his A.D. should be no greater than ±0.45 and that no single deviation should exceed ±0.9. A very reliable judge can score at least one-half of his pupils'

TABLE I

THE RESULTS OF A TEACHER'S FIRST EXPERIENCE WITH A COMPOSITION SCALE*

Practice Theme	Teacher's Score	True Score	Deviation
D1	7.0	6.5	+0.5
D2	2.0	2.6	−0.6
D3	7.0	7.9	−0.9
D4	3.0	3.2	−0.2
D5	0.0	0.8	−0.8
D6	5.0	4.5	+0.5
D7	0.0	1.25	−1.25
D8	0.0	1.1	−1.1
D9	6.3	8.0	−1.7
D10	3.0	2.2	+0.8
Total	.....	.....	8.35
Average	.....	.....	±0.835

* Systematic error, −0.475.

themes within *the* year to which they belong. This means an A.D. of ±0.23 or less. Usually, however, it requires an average score of several judges to classify a pupil so reliably or to evaluate a theme so accurately. That is why not less than ten teachers should attempt to build a general composition merit scale.

Tables I, II, and III record the progress of a Minnesota high-school English teacher who learned to use an objective composition scale reliably by the procedure just described. Table I shows the results of her first experience with the scale. Her A.D. of ±0.835 means that she scored one-half of the practice themes within two composition years of where they belonged; the other half were more than two years misplaced. Though her judgment was very accurate

on Theme D4 and fairly accurate on Themes D1, D2, and D6, she erred from two to four composition years on the other themes. Her

TABLE II

THE RESULTS OF A TEACHER'S EXPERIENCE WITH A COMPOSITION SCALE AFTER TWO HOURS OF STUDY AND PRACTICE*

Practice Theme	Teacher's Score	True Score	Deviation
E1	6.0	4.5	+1.5
E2	7.0	7.0	0.0
E3	1.0	0.4	+0.6
E4	2.5	2.0	+0.5
E5	7.0	6.1	+0.9
E6	2.0	1.9	+3.1
E7	4.0	5.4	−1.4
E8	7.5	8.0	−0.5
E9	4.0	3.9	+0.1
E10	2.0	1.65	+0.35
Total	.....	.....	5.95
Average	.....	.....	±0.595

* Systematic error, +0.215.

TABLE III

THE RESULTS OF A TEACHER'S EXPERIENCE WITH A COMPOSITION SCALE AFTER SIXTEEN HOURS OF STUDY AND PRACTICE*

Practice Theme	Teacher's Score	True Score	Deviation
F1	7.0	7.3	−0.3
F2	4.0	4.0	0.0
F3	2.5	2.4	+0.1
F4	4.0	3.7	+0.3
F5	0.0	0.3	−0.3
F6	2.0	2.5	−0.5
F7	1.0	1.0	0.0
F8	1.0	1.1	−0.1
F9	3.0	2.7	+0.3
F10	1.5	1.6	−0.1
Total	.....	.....	2.0
Average	.....	.....	±0.2

* Systematic error, −0.06.

judgment was capricious. Not satisfied, she did what every beginner has to do—study the scale and practice further with it. Table II

shows that after studying her first record and the scale for two hours, she was able to evaluate one-half of the next ten practice themes within one and one-half composition years of where they belonged. Her judgment was still erratic on three themes, but she came close to the true score more often than she did on her first trial. After fourteen more hours of study and practice, she tried a third set of ten themes. Her record is shown in Table III. She had reduced her A.D. to ±0.2, which means that one-half of the themes were scored within *the* year to which they belonged. Only one theme, F6, was misplaced more than one composition year. If she can maintain this record, she may rightly be called a very reliable judge of general composition merit.

The only way to improve an erratic judgment is through thoughtful, diligent, patient practice and study of the results of frequent quantitative measurements of such practice. Composition is such a complex matter that probably a teacher's greatest controllable asset is patience. There is known to be a direct relation between intelligence and the ability to evaluate composition merit reliably; consequently, a mentally capable teacher may reasonably be expected to make faster and further progress in improving his reliability than will one not so fortunately endowed. But every teacher who follows thoughtfully the procedure recommended here may expect to improve his judgment. The first essential step in the refinement of one's reliability of judgment is to ascertain the presence, nature, and amount or degree of his unreliability. He will probably learn more about his judgment from ten themes scored on an objective scale than he would learn in a lifetime confined to the customary use of capricious, subjective, personal composition standards.

The A.D., then, tells a person how erratic his judgment is. It shows him how far above or below the true value he wabbles on *each* theme. Before he can score with consistent reliability, he also needs to know whether his *general* standard of composition merit is too high or too low, and if either, how much. This is the second essential step in qualifying to build a local composition scale. After one has scored a practice set of themes and has computed the deviations, he should add the deviations *algebraically;* that is, he should add all his plus deviations, add all his minus deviations, and subtract the

smaller from the greater. This will give him his net deviation. He should then divide this by the number of practice themes in order to see how much, on an average, his standard is consistently too high or too low. This is called his *systematic error*. It shows him how much he needs to raise or lower his general standard of composition merit in order to assign themes their true scale values.

Tables I, II, and III also record the teacher's progress in reducing her systematic error. In her first trial her three plus deviations totaled 1.8. The sum of her seven minus deviations was 6.55. The difference was −4.75, and the average was −0.475. This teacher happened to be using the Hudelson Typical Composition Ability Scale. Her systematic error of −0.475 showed her that her general estimate of composition merit was almost one-half of a scale step too low. In her next trial (Table II) she showed by her systematic error of +0.2 that in endeavoring to correct her standard she *over*-corrected it by one-fifth of a scale step. This was really not a grave offense, for human judgment seems to be like a metal rod. When a person wants to bend a wire into a certain shape, he deliberately bends it a little too far because he knows that it will spring back slightly when the pressure is removed. In the same way a corrected judgment tends to revert more or less toward its old standard; consequently an overcorrection is likely to decrease.[1] Table III shows that after sixteen hours of study and practice this teacher was able to adjust her standard so nicely that her systematic error was negligible. If she can maintain this standard, her composition classes as a whole will be scored justly. Her average deviation and her systematic error in Table III both reveal an exceptional refinement of judgment.

Correcting his systematic error will not necessarily decrease a person's average deviation. His judgment may still be erratic on single themes. A small systematic error simply means that every time he scores a theme too high he scores another one equally low. Consequently, his average score on several themes will approximate the true average. A small systematic error, therefore, insures justice

[1] This may not be true in other types of judgment, but it holds in every case which the author has studied while training several hundred English teachers to use objective composition scales.

to a class as a whole but does not prevent gross injustice to individual pupils. Only a low average deviation will do that.

Every rational person tries to reduce his systematic error in all practical matters requiring the exercise of judgment. The billiard player gauges the amount of English which he puts on his cue-ball by the results of his previous application of various amounts of English. The marksman examines his target to see whether he is consistently aiming too high, too low, too far to the right, or too far to the left. When a carpenter needs a timber of a certain length, he may go to the lumber pile and select one which he thinks will do without sawing. If his judgment of linear dimensions is inaccurate, it will be wise for him to use a measuring instrument. English teachers, whose standards of composition merit are notoriously erratic and who are working with much more precious material than lumber in building social structures, have an infinitely greater need of objective measuring devices. Mere observation may tell both the carpenter and the English teacher that their judgments err, but the carpenter's square and the composition scale will tell them which way and how much their judgments err and so give them a quantitative basis for correcting their standards.

Every conscientious person also tries to reduce his deviations or fluctuations of judgment in practical matters. The honest carpenter who selects timbers by observation strives to refine his judgment so as to save himself labor and his employer expense. The scrupulous English teacher seeks to refine his judgment of composition merit so as to reduce injustices to individual pupils. The use of objective standards of measurement will expedite the attainment of reliability in all matters requiring the exercise of judgment.

When ten or more teachers can consistently score themes within a composition year (0.45) of their true values, they are competent to co-operate in devising their own composition scale. The first step is to choose a subject. They should employ the one used in the scale on which they have been practicing. This is important for two reasons. Theme assignments differ in the quality of composition which they evoke; and it is more difficult to measure quality accurately on a subject different from that employed in the scale than it is to score themes written on the topic used in the scale. Another important

caution is that in administering a composition test the same procedure should be followed that was employed when the themes which compose the scale were written. Otherwise, the assignment may be misunderstood, and themes may be written from an unanticipated and impracticable point of view. Such an instance has already come to the writer's attention. The Hudelson Maximum Composition Ability Scale was to be used. The title of the themes composing this scale is "How I Learned a Lesson." Each specimen in the scale relates how some pupil profited from an experience and records his ethical conclusion. A teacher who neglected to give the assignment faithfully received a set of themes every one of which explained how its author studied his English lesson!

The themes which are to form the local scale should bear no marks of identification. Neither the child's name nor his school year should appear on the manuscript. If they do, they should be removed, numbers substituted for the names, and a key to the numbers sealed and filed. Even the handwriting should be eliminated in some way, for many teachers learn to identify authorship by it. This can be accomplished either by having all themes faithfully reproduced in mimeographed form or by using themes written by pupils whose teachers are not involved in the scoring. School X may score School Y's themes while School Y scores School X's themes. Mimeographed compositions have the advantage of eliminating penmanship, which is not an inherent factor in composition quality.

When the local themes are ready to be scored, each teacher must work independently. No judge should see the marks of any other judge until all scoring is completed, and no ratings should be changed after teachers have compared results. When the scoring is completed, all scores should be recorded on a master sheet. Either the median or the average score should then be computed for each theme. The final step is to select themes for the local scale the median or average scores of which represent varying degrees of composition merit, to arrange these specimen themes in ascending or descending order, and to denote above or beside each specimen its median or average scale value. The scale may then be typewritten, mimeographed, or printed, or it may be kept in script. If more than one copy of the scale is desired, it should be mimeographed or

printed. In either case, care must be taken to have each specimen faithfully reproduced.

The values of the specimens composing the new scale will depend entirely on how the median or average scores turn out. Other things being equal, scales the samples of which represent even and uniform steps are the easiest to use. That is, a scale with specimens at 0.0, 1.0, 2.0, 3.0, etc., up to 8.0 or 9.0 has been found more serviceable than a scale composed of samples of uneven values and irregular steps. Unless several hundred themes are scored, however, one is not likely to get such a fortunate assortment of samples. Moreover, it is almost impossible to secure from pupils specimens of zero merit and samples above 8.0 in quality. These are not absolutely necessary in a local scale, however, for pupils rarely write that poorly or that well. A reliable scale containing samples representing composition values of 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, and 8.0, or one with samples at 2.0, 4.0, 6.0, and 8.0, will serve most local purposes. An honestly made scale containing even fewer and less regular steps is better than a spurious scale or no scale at all.

WHAT THE TEACHERS WANT FROM THE PRINCIPAL IN HIS CAPACITY AS A SUPERVISOR

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The present discussion is a composite of information gathered from educational articles, of data collected from teachers through a questionnaire, and of the writer's own reactions toward the topic considered. The question is not what the writer wants but what teachers as a group want. It is both impertinent and unscientific to discuss the topic of what teachers want without making an attempt to find out their desires. Therefore, as a basis for this article, a questionnaire of fourteen questions was prepared and sent to seventy-six high-school teachers. Some of the questions asked are as follows:

Do you believe a principal should be both a supervisor and an administrator?
Have you taught for any principal who supervised the instruction?
Did his supervision help you?
Was the help definite and concrete?
Was the help general and inspirational?
Did his supervision hinder you?
Was the instruction in his school poor, fair, good, excellent, or superior?
Have you taught with any principal who did not supervise the instruction?
Was the instruction in his school poor, fair, good, excellent, or superior?

During the past year "supervision" has been such a vital question among teachers in the Chicago schools that the questionnaire was sent to the teachers in a number of high schools outside of Chicago in the hope of eliminating any emotional coloring due to the situation in Chicago. The schools represented are five outside of Chicago and three in the city of Chicago. The responses have been cordial and seemingly frank. Each of the fourteen questions required only a one-word reply, but many of the teachers manifested enough interest to add paragraphs of definitions, limitations, etc. The re-

marks are most illuminating, and the various views expressed are here summarized. It is well known that there are many pitfalls in the questionnaire method of obtaining information. There is no claim that the statements made are mathematically accurate, but the use of a questionnaire seemed the most practical method of collecting individual teacher reactions. There has been no sorting of replies, no discarding of those opposed to the writer's views, no selecting of such answers as would tend to support anyone's theories; this article aims merely to report accurately what the teachers said in writing that they wanted.

The teachers can be classified in three groups: the bold, the timid, and the courageous; and their corresponding wants can be summarized under the three main headings of non-interference, minute directions, and democratic supervision. It is the writer's opinion that these three types of wants bear a direct relation to the quantity and quality of teaching done.

Let us consider first the wants of those who advocate non-interference. They are the living descendants—if not by blood, at least by likes and dislikes—of the early writer who coined the following: "The business of a supervisor is to cast a genial influence over his school, but otherwise he is not to interfere with the work."[1] This characterization of the supervisor may be wholly different from that which is accepted by principals, but at least one-third of the high-school teachers answering the questionnaire not only believe in, but openly advocate, the "genial" type of supervisor as their ideal. They frankly claim that principals do not know the content of all the high-school subjects and hence are not fitted to supervise them intelligently; therefore, they desire nothing from the principal in his capacity as a supervisor. Three typical statements may be quoted as illustrations. Each was added voluntarily at the end of the questionnaire.

> I miss the principal's supervision; however, I do not expect it. In fact, I do not want supervision by a principal in these city high schools, because he could not possibly give adequate and well-thought-out advice. A principal cannot supervise and be an executive unless the school is comparatively small, say less than one thousand.

[1] Quoted by Lotus D. Coffman, "The Control of Educational Progress through Supervision," *Addresses and Proceedings of the National Education Association*, LV, 88.

Do I, a highly trained specialist in my subject, want supervision from a principal? I should say not. Most of them are too ignorant of what I am trying to do to offer worth-while advice.

I spent five years getting ready to teach my subject. Do you suppose I want a principal who knows less than I do about my subject coming in and interfering with my business?

It is the duty of the writer to tell what the teachers want. It would not be honest to cover up unpleasant accusations and smilingly pretend that all teachers are crying for supervision. Perhaps the accusations against principals are false, perhaps true; perhaps it is not necessary to be a specialist in the subject matter of sixteen different high-school courses in order to be an intelligent supervisor of the sixteen courses. Perhaps the all-important thing for a principal to know is that definite laws of learning applicable to all subjects exist, and perhaps the all-important thing for a principal to be is an artist in getting the teachers to apply these laws to the subjects they teach. This article is not concerned with these possibilities. Any principal who believes that supervision of instruction is one of his duties must figure out what to do with the group of teachers who advocate non-interference. He cannot smilingly ignore them, for they are the boldest of the three groups. Though they advocate non-interference, they are continually interfering with the work of teachers who are anxious to develop a better technique of classroom instruction through the supervision of the principal. It is certainly someone's job to teach this group that "non-interference" from a principal does not spell "liberty" and that intelligent supervision does not develop slaves but, on the contrary, develops free teachers.

The second group is made up of timid souls, willing to be supervised but so lacking in initiative as to want minute directions with regard to nearly every step of the teaching process itself. If inexperienced, they want the principal to help them form correct habits of classroom procedure; if experienced, they want the principal to help them break up their ineffective habits of teaching and develop a good technique. They want definite help in securing discipline, in planning their lessons, in using devices to awaken interest, in overcoming their timidity, in determining how much to expect of the pupil in the way of home work, in acquiring poise in the classroom, and in determining just why pupils react toward them as they

do. In fact, teachers of this group want the principal to diagnose their difficulties and to prescribe and effect a permanent cure. Several of the teachers expressed a desire to work with principals who are skilful in classroom instruction and willing to demonstrate their skill by actual teaching. One teacher said, "In my experience, I have noticed that principals as a class are not fond of teaching any subject. At least, they are not fond of exhibiting their ability in my classroom."

A large task this group of teachers has carved out for the principals! But the principal who can honestly say that five, ten, or a hundred teachers came to his school timid and inexperienced and that he has seen them, under his supervision, develop their latent possibilities and grow into excellent teachers has done the community an incalculable service. Many are bearers of degrees; many pass high-school teachers' examinations; many are certified teachers; but among these there are some who carry all the outward symbols of efficiency and somehow have failed to acquire an intelligent grasp of their subject matter and a wholesome understanding of the basic laws of learning. Principals who believe in instructional supervision have a wonderful opportunity to eliminate such a group from the school systems through the type of intelligent supervision that will develop effective teachers from this group.

If the contents of current educational journals are a fair index of the interests of their readers, one is forced to conclude that supervision of classroom instruction is of supreme importance to those interested in the development of secondary education. It is not in place to summarize here the articles which have recently appeared, but, as proof that the educational world is interested in improving classroom teaching through supervision, it may be noted that the following articles appeared in February and March, 1925: "Supervision of Instruction in the High School" by Bertie Backus (*Educational Administration and Supervision*, February, 1925), "Supervision from the Point of View of the Teacher" by Fannie B. Hayes (*School Review*, March, 1925), "The Supervisor's Job" by Cyrus D. Mead ((*Journal of Educational Method*, March, 1925), and "Job Analysis of the Principal as a Supervisor of Instruction" by R. W. Tarbell (*American School Board Journal*, March, 1925).

Why this outburst of interest in schemes for improving classroom instruction in the high school? Part of the interest is one of the by-products resulting from an attempt to solve the problem of what to do with the type of pupils who are now entering high school. Formerly, the grammar school served as a sort of selective agency for the high school; that is, the grammar school sent to the high school pupils who had mastered the fundamental traditional school subjects. Teachers received them, grumbling, perhaps, because they knew so little, and proceeded to feed them the traditional subject matter that the colleges had trained the teachers to think was all important. Most of the pupils ate and assimilated the offered food. Those who had no natural craving for this food were eliminated as not worth bothering with, or, if the pupil had wealthy parents, the suggestion was sometimes made that a paid tutor be employed. But, today, high schools have whole classes, not one or two in a class, who not only have no natural appetite for the traditional foodstuff but who positively refuse even to be tempted by our traditional methods of teaching into tasting what we offer. Therefore, the school's responsibility toward this group of potential citizens can be met only by the highest type of skilful teaching known to educational science. Formerly, a comprehensive knowledge of subject matter was the all-important thing to possess. Today, skill in the teaching process itself is co-ordinate in importance with mastery of the subject matter. There is in this statement no implication that a teacher needs to know less of his subject matter than formerly; in fact, he needs to know more, for, today, if he succeeds, he must see his subject in its relation to other high-school subjects and to life-activities.

Teachers of the third group are anxious to measure up to their responsibilities, are eager to do their part toward giving all the pupils who enter high school equal opportunities to develop their native capacities to the highest degree possible. Therefore, they want from their principal in his capacity as supervisor the following: (1) accurate information with regard to the results of every type of modern classroom procedure that has been scientifically tried out and scientifically developed into a definite technique; (2) definite information as to which schools and in which classes these new types of technique are habitually practiced; (3) an opportunity to visit teachers who

are proving themselves masters of the new types of technique; (4) after a mastery of the theory of the new technique an opportunity to practice intelligently under the sympathetic supervision of the principal; (5) reliable information on what educational science claims are the correct quantity and quality of mathematics, English, or shop to offer an adolescent pupil with a low I.Q.; (6) new and carefully evaluated courses of study appropriate to the immediate and future needs of every pupil; and (7) teachable material on which the pupil, regardless of his I.Q., will thrive and eventually develop to the highest of which he is capable. But paramount to all these wants is the desire on the part of teachers to enjoy the privilege of working with a principal who has such a vision of the bigness of his job that he courageously assumes the responsibility for the success of his school and yet is so democratic in his technique of leadership that he inspires the classroom teacher with the feeling that, since the success or failure of a high school is a dependent function of classroom teaching, the classroom teacher is, if the work is artistically done, as important a social factor in the community as is the principal himself.

A STUDY OF THE RELATION OF READING ABILITY TO SCHOLASTIC ACHIEVEMENT[1]

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To seek economy in educational administration through an efficient classification of pupils on the basis of ability is one of the modern educational tendencies.[2] A large number of the so-called "general intelligence tests" are directly and largely dependent on reading ability.

Reading has long been considered the most important single subject that the child encounters in the curriculum. Its place is unquestioned, for reading consumes more time than any other subject.[3] It is the means of furnishing pupils with that instrument which is to be used throughout their school lives. The ordinary emphasis placed on the terms "literacy" and "illiteracy" shows the high regard in which people hold instruction in reading as related to life beyond the school. From its very origin, the American school has been a reading school and has thus aimed to make the individual intellectually independent.

Despite this sentiment, examination of the American soldiers during the recent war proved that one-fourth of them could neither read newspapers readily nor write simple letters.[4] Most of the young recruits had attended school during their boyhood and had learned to read with some degree of skill, but they had not retained this abil-

[1] When the material for this study was obtained, the writer was a teacher in the Logansport High School, Logansport, Indiana.

[2] Wendell White, "The Influence of Certain Exercises in Silent Reading on Scores on the Otis Group Intelligence Scale," *Elementary School Journal*, XXIII (June, 1923), 783–86.

[3] Charles Hubbard Judd, *Measuring the Work of the Public Schools*, pp. 125–26. New York: Russell Sage Foundation, 1916.

[4] May Ayres Burgess, *The Measurement of Silent Reading*, pp. 11–14. New York: Russell Sage Foundation, 1921.

ity to the extent that they could use reading as a practical tool in everyday life a few years after leaving school.

Poor results in the field of reading can be attributed not so much to lack of attention as to the use of methods that do not fully function. At least, they do not function fully and completely enough to carry over into the other phases of educative work.

For a long time there has been a great deal of discussion in educational circles with regard to the fact that high-school pupils cannot read intelligently. There has been a corresponding amount of discussion about the reasons for this state of affairs and no dearth of suggestions for remedying it. On discovering the inability of their pupils to interpret problems, some mathematics teachers have been known to wonder what the English classes have been doing.

If we grant, then, that reading is the most important of the basic or fundamental subjects, the pupil's ability to grasp and interpret thought from the printed page qualifies the measure of his success or failure in all the other subjects.

What is the relation that exists between the reading ability of high-school pupils as measured by certain standard tests and their scholastic achievement as measured by teachers' marks? "Scholastic achievement" as used in the title of this article is taken to mean the degree of attainment in each subject as shown by the teacher's marks.

The method employed in this study was statistical, for it consisted of basing conclusions on the correlations between the marks pupils received in school and the scores made on tests.

On September 26, 1922, three tests were given to a group of pupils in Grade IX B: the Pressey Mental Survey Scale (cross-out tests), the Thorndike-McCall Silent Reading Scale for the Understanding of Sentences, and the Thorndike Visual Vocabulary Scale, Alpha 2, X series. The procedure indicated in the directions which accompany the tests was followed.

The scores used were as follows: (1) For the "cross-outs" the actual marks were used, 100 being a perfect score. (2) In the case of the Thorndike-McCall Silent Reading Scale it was decided to use the raw scores, that is, the number of questions answered correctly. (3) In the Thorndike Visual Vocabulary Scale the thirteen lines of

words are numbered according to the degree of difficulty. In scoring the papers, the number of words correct in each line was multiplied by the value of the line. The total score was made up of the sum of the products of the lines. The writer scored all the papers in order to insure uniform scoring. The scores are shown in Tables I, II, and III.

TABLE I

DISTRIBUTION OF THE SCORES MADE ON THE INTELLIGENCE TEST*

Score	Number of Pupils	Score	Number of Pupils
92–95	1	64–67	18
88–91	6	60–63	16
84–87	9	56–59	11
80–83	12	52–55	4
76–79	7	48–51	3
72–75	21	44–47	6
68–71	30	40–43	5
		Total	149

* Perfect score, 100; median, 69.12.

TABLE II

DISTRIBUTION OF THE SCORES MADE ON THE THORNDIKE-MCCALL SILENT READING SCALE*

Score	Number of Pupils	Score	Number of Pupils
33	1	24	11
32	2	23	14
31	1	22	7
30	17	21	4
29	11	20	5
28	13	19	3
27	22	18	3
26	14	17	1
25	20		
		Total	149

* Perfect score, 35; median, 26.28.

The marks used in this study were obtained from the school records for the pupils' work in the eighth, ninth, and tenth grades. Marks were available for 149 pupils who took the tests. In the tenth year, however, the number had decreased to ninety-one pupils.

The coefficients of correlation were computed on the basis of the

formula explained by Rugg in chapter ix of his book on *Statistical Methods Applied to Education*.[1] The probable error of the coefficients was determined in each case from the same author's formula.

The correlation between the scores on the three tests was as follows: the Thorndike Visual Vocabulary Scale and the Thorndike-McCall Silent Reading Scale, $.763 \pm .026$; the intelligence test and the Thorndike-McCall Silent Reading Scale, $.649 \pm .032$; the intelligence test and the Thorndike Visual Vocabulary Scale, $.631 \pm .031$.

These coefficients of correlation are high enough to be significant and, falling, as they do, within a comparatively close range, would

TABLE III

DISTRIBUTION OF THE SCORES MADE ON THE THORNDIKE VISUAL VOCABULARY SCALE*

Score	Number of Pupils	Score	Number of Pupils
868–909	13	499–539	5
827–867	10	458–498	6
786–826	15	417–457	8
745–785	14	376–416	4
704–744	9	335–375	4
663–703	8	294–334	8
622–662	12	253–293	6
581–621	9	212–252	3
540–580	10	170–211	5
		Total	149

* Perfect score, 910; median, 641.8.

seem to prove a relatively high positive relation between the scores made on the three tests. While the measurement of one trait or set of traits through the use of one test or scale might be a fairly reliable gauge of ability as a whole, this test or scale would not of necessity yield satisfactory results in making a detailed diagnosis of strength or weakness within the field of reading. Thus there is a sounder basis for conclusions drawn from the coefficients of correlation than for inferences drawn from but one set of tests. At the same time it is proved that the nature of the three tests is such that, if one of them measures a certain characteristic, trait, or quality with a certain degree of accuracy, each of the other tests measures a characteristic,

[1] Harold O. Rugg, *Statistical Methods Applied to Education*, pp. 265, 272. Boston: Houghton Mifflin Co., 1917.

trait, or quality more or less related to the first with approximately the same degree of accuracy.

The high correlation (.649±.032) between the scores made on the intelligence test and the scores made on the silent-reading test would tend to suggest a very pertinent relation between the two. The question then arises, Is the pupil more intelligent because of his ability to read, or does he read well because of his innate abilities?

TABLE IV

CORRELATION BETWEEN THE SCORES ON THE THREE TESTS AND THE MARKS RECEIVED IN THE DIFFERENT SCHOOL SUBJECTS

	Intelligence Test	Vocabulary Test	Silent Reading Test
Eighth grade:			
English	.448	.449	.408
Mathematics	.289	.560	.404
History	.352	.520	.506
Science	.666	.496	.368
Music	.701	.722	.743
Ninth grade:			
English	.688	.522	.604
Mathematics	.233	.445	.433
History	.372	.512	.542
Foreign language	.502	.524	.491
Tenth grade:			
English	.523	.548	.516
Mathematics	.427	.414	.470
History	.442	.530	.510
Foreign language	.386	.482	.448

A further question arises as to just what part reading ability plays in the actual process of taking the test.

The coefficient of correlation between the scores on the vocabulary and the intelligence tests (.631±.031) was practically the same and would further tend to emphasize the foregoing statements.

It is, perhaps, not very surprising that the highest coefficient of correlation (.763±.026) should be between the scores on the silent-reading and the vocabulary tests. It has long been more than a matter of supposition that there is a direct and definite relation between reading ability and vocabulary range. The pupil, then, with a large vocabulary is likely to be a good reader.

Table IV shows the correlation between the scores made on the

three tests and the marks received in the various school subjects of the eighth, ninth, and tenth grades, respectively. The amount of interdependence existing between the functions of mental ability and reading ability on the one hand and the functions of scholastic achievement on the other may be observed in the size of the coefficients. These coefficients range from .233 to .743 for the subjects of the eighth, ninth, and tenth grades in which enough pupils were enrolled to warrant the computation of correlations.

The variation in the size of the coefficients may be due to several causes. Tests and scales and teachers' marks probably do not measure exactly the same traits, abilities, and tendencies. Again, one or the other or both of these may not measure very accurately the traits, abilities, and qualities they seek to measure.

After proper consideration of all the possible inaccuracies involved—the chances of unreliability due to teachers' marks and scores on tests and the fact that they are in no wise attempts to measure the same thing—it may be said that coefficients of correlation ranging from .233 to .743 prove that there is a rather close relation between the ability to read and the ability to make proper progress in the several school subjects. There would seem to be sufficient ground for the statement that ability in one line is accompanied by ability in the other. Pupils who are found to be above the average in one group are the ones who tend to be above the average in the other.

As a group, the marks for the eighth-grade subjects correlate higher with the scores on the tests than do the marks for the ninth-grade subjects; the ninth-grade marks correlate slightly higher with the scores on the tests than do the marks for the tenth grade. The tests were given at the beginning of the ninth grade. By the end of the tenth grade the pupils had, no doubt, improved a little in reading ability. Had they been retested in reading and the scores used for the tenth grade, the correlations would, perhaps, have been higher. A number of the poorer pupils had dropped out at the end of the ninth grade; the more homogeneous the grouping tends to become, the smaller will be the coefficient of correlation. A number of investigators have claimed a high degree of relation between scores on intelligence tests and scholastic achievement when the co-

efficients of correlation ranged about the same as those found in this study. Since there is an even higher correlation between school success and reading and vocabulary ability, the writer feels justified in making the statement that the results prove the correlation "markedly present."[1]

There would seem to be no question, then, that reading ability plays an important rôle in determining scholastic success. The greater the general capacity of the pupil to react to new conditions of

TABLE V

CORRELATION OF MARKS IN THE DIFFERENT SUBJECTS

	English	Mathematics	History	Science
Eighth grade:				
Mathematics	.588	.....	.....	.....
History	.634	.646	.....	.....
Science	.623	.593	.628	.....
Music	.718	.635	.637	.682
Ninth grade:				
Mathematics	.521	.....	.....	.....
History	.610	.652	.....	.....
Foreign language	.496	.592	.574	.....
Tenth grade:				
Mathematics	.478	.....	.....	.....
History	.563	.385	.....	.....
Foreign language	.422	.514	.438	.....

environment and the greater his ability to read rapidly with sufficient comprehension to get the thought, the greater are his chances for doing successful school work.

A related problem which grew out of this study was that of the correlation of marks in subjects for the eighth, ninth, and tenth grades. Table V shows these correlations.

There are a great many pupils who can read easily the selections in their literature assignments but who fail to show an equal degree of reading ability when they study their arithmetic or geography texts.[2] Since about the same variation has appeared in the scores made by the pupils in different standard reading tests, reading abil-

[1] Harold O. Rugg, *op. cit.*, p. 256.

[2] Estaline Wilson, "Specific Teaching of Silent Reading," *Elementary School Journal*, XXII (October, 1921), 140–46.

ity must vary according to the kind of material which the pupil reads. The mental quality necessary to read literary selections seems to be a little different from that required to read problems in mathematics in an understanding manner; the ability to read geography differs from the ability to read poetry.

In the informational and narrative subjects of English and history, high-school pupils have had much specific practice in gleaning the thought from the page. They have been trained to read and to be ready to answer questions on material of this kind. Even poetry, possessing as it does obscure sentence structure and less familiar vocabulary, does not cause the pupil half the difficulties which he encounters in the field of mathematics. This is, perhaps, due to the fact that modern textbooks and teachers have developed a fine technique for getting the meaning of poetry, whereas a similar technique has not been developed in the field of mathematics. The writer wishes to state that he is not at all certain that everyone will agree with the foregoing statement, for many teachers of mathematics insist that the directions and problems are clearly followed and understood.

Pressey explains that during his school years the child acquires a general vocabulary made up of the commonest English words and several much smaller technical vocabularies.[1] The general vocabulary, made up of about five thousand words, is acquired by the end of the fourth grade. As soon as a child begins the study of science, mathematics, etc., he begins encountering and acquiring special technical vocabularies. This readily proves that ability to read well in the lower grades does not necessarily mean a comprehension of arithmetic problems or science texts. One important cause of the pupil's failure to understand his texts is his failure to recognize certain of the important technical words.

In the field of mathematics reading ability plays an important part in so far as written problems are concerned. With regard to the large amounts of other exercises found in mathematics texts, reading and vocabulary ability play a much smaller part, for such exercises

[1] Luella Cole Pressey, "The Determination of the Technical Vocabulary of the School Subjects," *School and Society*, XX (July 19, 1924), 91–96.

are worked out by rule or formula after the proper explanations have been made by the teacher.

In reading and history, subjects in which a great deal of material must be covered, silent-reading and vocabulary ability cannot be overestimated. Pupils are expected to be able to read pages and pages of a narrative or of a history assignment and to be able to reproduce the content. The pupil who can comprehend such material rapidly has untold advantages over the slower pupil who must plod along sentence by sentence until he works his way through the assignment. It would seem that the reason so many pupils can do fairly well in the informational subjects is because they are drawing upon their general vocabularies rather than upon their specialized vocabularies.

At first glance it would appear that silent-reading ability has no very definite function in the initial stages of studying a foreign language, since a great deal of time is spent in learning words in the new language and in drill on forms of verbs, nouns, adjectives, etc. In later stages of the work, however, when the major emphasis is on translation into English, the pupil with the greatest number of words at his command has the opportunity to make the most polished translation.

Comparatively high correlation was found between the scores on the vocabulary test and the marks in foreign language in Grades IX and X. This shows that word meaning is highly important in the beginning work of a foreign language.

It can be seen that if there had been perfect correlation between all the subjects, the average marks for the year in any one of them could have been used to rank the pupils in success in scholastic achievement and that the larger the coefficients of correlation, the more reliable the average as such a measure. The general average, however, is a safer measure to use. This can be justified on the ground that if a pupil is ranked too low in any one subject, he can expect the marks in the other subjects to counteract that tendency and cause his marks to strike an average nearer what he should have received. On the other hand, if he is rated too high in any subject, the other marks will tend to balance his average. These school marks are measures, more or less accurate, of scholastic achievement as

judged by different teachers under conditions that vary to some extent according to the nature of the subject taught.

Since the coefficients of correlation in Table V are positive and range from .385 to .718, they substantiate the fact that those tendencies and characteristics taken as a whole which produce scholastic achievement in one subject in the curriculum function in a similar manner for successful achievement in other subjects if reading ability is involved.

In the eighth grade, English correlates a little higher with history (.634) than with either science (.623) or mathematics (.588). This is, perhaps, as it should be, for English and history are conceded to be more closely related as school subjects, and all reading ability and word knowledge that would function in one would function in the other to a corresponding degree.

We might expect mathematics, then, to correlate higher with science than with English or history. Such is not the case, however, for Table V shows that mathematics in the eighth grade correlates higher with history (.646) than with science (.593) and that the correlation with science is only slightly higher than the correlation with English (.588). This lack of a high correlation between mathematics and science is due, no doubt, to the fact that the beginning sciences, which do not include physics or chemistry, are not mathematical to a very great extent.

Much the same tendencies predominate in the ninth grade as in the eighth grade. Since the processes involved in the study of a foreign language are much like those involved in mathematics, it is not surprising that the coefficient of correlation between the two is as high as .592. The correlation of mathematics with history (.652) is even higher and seems to defy explanation. The correlation between foreign language and mathematics (.592) is a little higher than the correlation between foreign language and history (.574) and the correlation between foreign language and English (.496). Despite the fact that fewer cases were used in the computations, the foreign-language coefficients rank relatively high, ranging from .496 to .592.

In the tenth grade the same general tendencies prevail, except that the lowest correlation is between history and mathematics (.385). The total range is from .385 to .563. This range is a little

larger than the range for either the eighth or the ninth grade, and the only explanation seems to be that the group had become more homogeneous through the withdrawal of a number of poor students.

Since teachers' marks in the various subjects are all influenced by the same subjective factors, it is not surprising that the different subjects have a higher correlation with one another than with reading ability and general intelligence as measured by standard tests.

CONCLUSIONS

1. The comparisons disclosed in this study reveal the fact that there is a positive correlation between reading ability and school achievement. (*a*) Those pupils who did the best on the silent-reading and vocabulary tests, taken as a group, did the best school work over the three-year period. (*b*) Those making the poorest scores on the tests, taken as a group, made the poorest scholastic showing. (*c*) Those specific elements that underlie reading and vocabulary ability and contribute to success in reading are important factors conditioning scholastic success in the other subjects.

2. Since there is apparent inability on the part of pupils to read and comprehend accurately the material which confronts them daily in their texts and since the tests disclose the fact that those pupils who make the poorest ratings in silent-reading and vocabulary ability are the ones who invariably drop out of school because of failure to do passing work, the writer feels justified in making the statement that more stress should be placed on silent reading and word study in the sixth, seventh, and eighth grades and that this work should not be discontinued in the high school.

Educational Writings

REVIEWS AND BOOK NOTES

The reorganization of the secondary-school curriculum.—Even though the secondary-school curriculum has tended to be conservative and to lag a generation behind the needs of society, it has always been changing and progressing. The change has been slow and reluctant. But within recent years a ferment appears to have been at work, affecting the very vitals of the organism and promising to precipitate changes of most unexpected proportions. To speak in biological terms, the secondary school seems to be on the eve of an educational mutation. Out of the old, a new species of institution appears to be arising.

Many are the principles of secondary-school curriculum-making that must be formulated and tried out, both in discussion and in actual practice, by way of guiding this educational mutation. Professor Cox[1] has done the profession a great service in formulating and explaining sixteen possible guiding principles to be considered. Of even greater service is his insistence on the need of basic principles to guide in a broad reformulation of the secondary-school program. The scientific work now needed is not a mere continuance of the "educational tinkering" that has been our method for so long.

Before presenting the sixteen principles to which the major discussion is devoted, the author treats the various social and psychological matters which are the determinants of the general educational principles. There is also a brief treatment of the technique of scientific curriculum-making. An extensive "Selected Bibliography" is included.

It is a forward-looking volume. Some of the principles presented, if fully employed in secondary-school curriculum adjustment, would result in a very full reformulation. Others are more concerned with relatively minor adjustments in the school as it now exists.

FRANKLIN BOBBITT

A notable summary and interpretation of reading investigations.—In certain fields of instruction numerous experiments have been accumulating for many years. There has been an especially urgent need for complete summaries and evaluations of the literature relating to reading and arithmetic. Too frequently summary treatments of experimentation in a given field lack completeness,

[1] Philip W. L. Cox, *Curriculum-Adjustment in the Secondary School.* Philadelphia: J. B. Lippincott Co., 1925. Pp. viii+306.

scientific discrimination in the selection of subject matter, interpretation, evaluation, and logical grouping of material.

A new monograph[1] by a recognized authority in the field of reading possesses all the qualities enumerated. The summary is based on the published reports of most of the reading investigations made in England and America prior to July, 1924. Reference is made to certain studies carried on in Germany and in France.

The first chapter states the problem. The second chapter traces the development of scientific interest in reading in Europe and America; it gives an overview of the problems studied and the tendencies developed. Fifteen chapters summarize the results of investigations that relate to fifteen major problems or phases of reading instruction.

Interest in the scientific study of reading began in Germany and France about 1850 and increased very slowly for a period of thirty years. There were three notable results of the early European studies of perception and eye-movements: facts were secured which presented a new and significant view of the processes involved in reading; additional problems for investigation were suggested, and keen interest in the scientific study of reading problems was stimulated in America; rapid progress was made in the development of experimental technique and mechanical devices for securing accurate records. The summary includes references to 436 studies made in England or America; of these, more than 95 per cent were carried on in this country. The early period of experimentation (1884–1910) was characterized by the interest and laboratory work of educational psychologists; it resulted in the clear-cut distinction between oral reading and silent reading and in the recognition of individual differences in reading habits. The transition period (1911–15) was marked by a wide interest in classroom problems, which is explained by two facts: the results of early studies challenged the validity of traditional methods of teaching reading and suggested numerous practical problems for investigation; a new instrument of investigation was introduced in the form of reading tests. The current period of unprecedented interest in reading investigations is characterized by a tremendous increase in the number of studies published, the investigation of a wide variety of problems, and the participation of teachers and school officers in classroom experiments.

Chapter iii points out certain significant facts concerning reading in modern life: intelligent reading is indispensable to effective participation in modern social life; the amount of reading that is done is increasing rapidly; the amount of reading varies widely in different parts of the country and even within small groups; illiteracy is widespread and is decreasing at a surprisingly slow rate. Chapter iv deals with the relation of reading to school activities: there is considerable correlation between reading achievement and progress in particular

[1] William Scott Gray, *Summary of Investigations Relating to Reading*. Supplementary Educational Monographs, No. 28. Chicago: Department of Education, University of Chicago, 1925. Pp. viii+276. $2.00.

subjects, as measured by class marks; the degree of correlation varies with the type of test used in measuring reading achievement; scholarship depends on ability to read, supplemented by other qualities, such as a high level of intelligence. Chapter v stresses the importance of silent reading: silent reading is used far more widely in social life than oral reading; it is a much more rapid process; it is usually accompanied by better comprehension of what is read. Chapter vi discusses current reading aims, time allotments, and the amount of reading in the various school grades.

The remaining chapters are concerned with individual differences and related problems, merits of different methods of teaching beginning reading, fundamental habits of recognition, intelligent interpretation, speed of silent reading, oral reading, children's interest in reading, nature and content of reading materials, hygienic requirements of printed materials, diagnosis and remedial instruction, and reading tests and measurements. The concluding paragraph indicates the need for a systematic reorganization of reading tests, the following steps being considered essential: the clear definition of the various phases of reading, the preparation of tests of various degrees of difficulty for each important phase of reading, and the control of variable factors in test materials and testing.

The monograph is unquestionably a major contribution to the field of reading. The study is decidedly more than a summary in that it evaluates, interprets, and groups logically the investigations included. The progress which has been made in the scientific study of reading is indicated, and additional problems for investigation are suggested. Teachers, supervisors, school officers, and investigators will find in the volume facts and principles which should prove helpful in the reorganization of courses of study in reading and in the improvement of the technique of teaching reading.

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Recent college texts in American history.—Buckle's dictum that the diffusion of knowledge is as essential to the promotion of human welfare as is the enlargement of the bounds of scientific attainment seems to be receiving increasing recognition. Evidence of this fact can be seen in the tendency in recent years on the part of scholars and scientists to make the results of scientific research and investigation available for students and the general public. Indeed, the results of investigations as incorporated in special studies and monographs have become so extensive that, unless presented in fairly condensed form, they remain unknown and hence of little influence so far as mankind in general is concerned. The chief value of two recent volumes on the history of the United States lies in the readily usable form in which the facts are presented. The first[1] of these

[1] Randolph Greenfield Adams, *A History of the Foreign Policy of the United States*. New York: Macmillan Co., 1924. Pp. xvi+490.

deals with the history of the foreign policy of the United States. The second[1] is confined to the history of the United States since the Civil War. Although the authors have little to contribute from their own research, they have made available for students and general readers many of the conclusions and interpretations reached in special historical studies and monographs. By so doing, they have rendered a genuine social service, for there are few subjects on which trustworthy information is more needed in the present day than on the subject of international relations and on the history of our own times.

Professor Adams has organized his treatment of American foreign policy in both a chronological and a topical manner. In the first half of the volume he has followed a chronological basis or organization for the most part, while in the second half he has usually adopted a topical treatment. Thus, in the first part of the book he devotes chapters to such themes as "American Diplomacy during the Revolution," "Diplomatic Problems under the Articles of Confederation," "The Frustration of Neutrality," and "Drifting into a Useless War"; while in the second part he treats his material under such headings as "A Century of Misunderstanding with Mexico," "One Hundred Years Successful Diplomacy with Great Britain," "Creeping down the Caribbean," and "Rivalry with Japan for the Pacific." The last three chapters deal primarily with events since the beginning of the world-war.

Professor Shippee, on the other hand, in his discussion of our recent history has followed a chronological organization throughout. Indications of the modern tendency to emphasize the economic and social phases of the past may be seen in such chapter headings as "Reconstruction in the North," "The Coming of Big Business," "The Labor Side," "The Coming of Populism," and "The Age of Big Business." At the same time the author provides a balanced treatment by including chapters on political developments with such titles as "The South and Reconstruction," "Politics of the Hayes Administration," "The Tariff and Politics," "Politics and the Panic," "The Silver Campaign," "The War with Spain," "The Progressives," and "Latin America and the Monroe Doctrine." All in all, the various lines of development that have characterized our national history during the last sixty years have been interwoven so as to give a composite picture of this part of American history.

Both authors appreciate the difficulties involved in a discussion of contemporaneous events. Says Adams: "The last three chapters, of course, ought to be judged on an entirely different basis from the others. What has happened since 1914 is yet too full of matters of controversy for anyone to make a final judgment" (pp. vii–viii). The comment of Shippee is equally judicious. "For much of this period events are too recent to have permitted anything more than tentative conclusions: time alone allows the perspective by which unimportant details take their proper place in the background and really significant happenings stand out clearly" (p. i).

[1] Lester Burrell Shippee, *Recent American History*. New York: Macmillan Co., 1924. Pp. ii+554.

In view of the difficulties inherent in treating recent events, both authors have been unusually successful in the weighing of available evidence and in the dispassionate presentation and interpretation of developments and personages. Naturally, many readers will dissent from the conclusions on various matters, but few will fail to be stimulated by the discussions.

Both volumes are clear, fresh, and readable. The bibliographical references are well chosen, and the maps (and illustrations in the Adams book) are valuable to students and general readers. Teachers will find the volumes stimulating and suggestive.

HOWARD C. HILL

An easy approach to educational statistics.—During the past decade statistical treatment of facts has received much consideration in educational literature. Almost every investigation in which facts are presented and interpreted involves some use of the principles of statistical method. A knowledge of statistics has become essential to the reader of this literature as well as to the person reporting an investigation. Unfortunately, most books dealing with statistical method are so technical in character that the untrained hesitate to attempt to master even the elementary principles of the method. A new text[1] presents the fundamental principles of statistics in such simple and non-technical terminology that a beginner in the field can readily understand it.

The author of the book has limited his discussions to the phases of statistical procedure in most common use. He has purposely omitted the more technical phases of the subject. The scope of the book is indicated in the following list of topics: frequency distributions, graphical representation, averages, measures of variability, theory of sampling, the probability curve, and correlation. The discussion of each of these topics is quite complete. Each topic is so treated that anyone having a knowledge of high-school mathematics can readily follow the explanations.

An outstanding feature of the book is its organization. It contains twenty-five short chapters, each dealing with a single statistical concept. This organization sets forth each concept clearly and thus aids the reader in avoiding confusion in terminology. The chapters are supplemented by well-selected problems illustrative of the concepts presented.

Another prominent feature of the book is the emphasis which is placed on the logical implications underlying the mathematical processes involved in statistical procedure. Texts on statistical method often neglect the logical implications and emphasize only the mathematical phases of the subject. The author of this text has succeeded in introducing ample illustrations to focus the attention of the reader on the meaning of the statistical procedures rather than on the mathematical processes. Simplicity of treatment is particularly noticeable.

[1] L. L. Thurstone, *The Fundamentals of Statistics*. New York: Macmillan Co., 1925. Pp. xvi+238.

The comparatively simple approach to statistical method should recommend the book to those who desire some acquaintance with the subject without making a detailed study of it. The book is also an excellent text for a beginning college class in statistics. It should make a favorable appeal to anyone desiring a simple and concise treatment of statistical method.

J. M. McCALLISTER

Teaching as a profession.—The brief tenure and the large annual turnover in the teaching profession create a fertile field for textbooks which are designed to orient new teachers to the problems of their profession in a minimum of time. Some writers have tried to meet this situation by producing texts which relate largely to methods and teaching technique. Others have made the mistake of trying to introduce the teacher to the whole field of educational science in the limits of a single volume. In most instances those aspects which are peculiarly inherent in the profession aside from technique have been slighted or assumed to be outside the province of a professional course for beginning teachers.

A new volume[1] of the Riverside series deals specifically with teaching as a profession. Every topic discussed is directly related to the teacher and her position. No issue is treated except as it contributes to better teacher adjustment. The chief emphasis is on the teaching profession rather than on teaching.

The present opportunities for teachers and the need and facilities for teacher-training are presented first. An excellent discussion relates to the ethics of the teaching profession. Subsequent chapters pertain to important administrative problems: teacher selection, the teacher's relation to the other levels of school administration, teacher participation in problems of administration, relation of teachers to supervision, the teaching load, and salary and pension considerations. The right of the school administration to measure the teacher's efficiency and to insist on continuous improvement while in service is set forth, together with the current administrative practice along these lines. The baffling problem of teacher tenure receives due consideration. An excellent chapter deals with the teacher's health and physical efficiency. There is a good explanation of the various types of teachers' organizations, local, state, and national. Finally, the teacher is led to see her position in relation to the local community and its educational program.

The authors make free use of the scientific research which is available in this field. A well-chosen bibliography at the end of each chapter is an additional contribution. Clear organization of material is evident in the abundance of tables, specific lists of illustrative matter, and logical sequence of discussion. Since the text is designed primarily for beginning students, there is a minimum of technical treatment which might seem involved or confusing to that group. Controversial matters are faced frankly and treated impartially in the light of the best educational science available.

[1] John C. Almack and Albert R. Lang, *Problems of the Teaching Profession.* Boston: Houghton Mifflin Co., 1925. Pp. xviii+340. $1.90.

The book accomplishes well what it purports to do. This may be its one weakness, since few schools of education or normal schools offer courses which are confined to such a limited section of the administrative field. However, whether used as a basic text or as a supplementary source, the volume merits consideration not only by prospective teachers but by teachers in service and school administrators. In general, the book maintains the same high standard which characterizes most of the preceding volumes of the Riverside series.

PAUL L. PALMER

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How to learn to swim.—Reliable statisticians report an average of nineteen deaths a day in the United States due to drowning. When one attempts to approximate a realization of this appalling loss of life through drowning, the fourth largest cause of accidental deaths, one seems justified in raising the question, Why do so few schools teach boys and girls to swim? Certainly this is a necessary type of school activity if one accepts Briggs's statement, "The primary purpose of the school is to teach its pupils to do better the desirable things that they are most likely to do anyway." Apparently in accordance with this point of view, the author of a recent book[1] states his purpose as follows: "I put forth this work with the hope that swimming will be made compulsory in every school in the world within the next ten years so that in another quarter century we will hear of no more absurd drowning accidents" (p. ix).

Starting with the motto, "Paddle your own canoe, but first learn to swim," the author presents, in sixteen chapters, a cogent discussion of the different strokes, diving drills, swimming drills, life-saving drills, the values of swimming, the problems of teaching swimming, the holding of swimming meets, and the building and care of swimming pools. The book is adequately illustrated with pictures and drawings. Copies of forms for use in scoring swimming events and in recording the results are given.

The book is written in a readable style, and the directions are clearly given step by step. The discussion of the strokes and dives is amply illustrated through the use of pictures and drawings showing the successive positions. The book will be of value to the amateur as well as to the professional swimmer. It should find a place in the library of the swimming instructor or the director of physical education. It will prove a worthy acquisition in the school or home library.

W. G. KIMMEL

A college text in citizenship.—One of the educational products of the world-war was the establishment in many colleges and universities of introductory courses in citizenship, social science, contemporary civilization, or modern social problems, planned and organized primarily for college Freshmen.

[1] George H. Corsan, Sr., *The Diving and Swimming Book*. New York: A. S. Barnes & Co., 1924. Pp. xviii+162. $3.00.

The inadequacy for teaching purposes of many of the available references forced instructors in such courses to rely on themselves to a considerable extent. In many instances they felt the need of preparing material to put into the hands of their students. Out of the material which thus developed there have come during the last few years a number of textbooks varying in scope, in methods of treatment, and in merit.

A recent volume[1] having its genesis in the experiments mentioned is the outgrowth of a course built on the "problem method." The point of view of the authors, as well as the character of their book, appears in the following passage from the Foreword:

> Problems of moment to intelligent citizenship are selected. Each contains in itself elements of history, sociology, economics, and political science, weighted according to the character of the problem. While an exhaustive discussion of the problems is impossible, enough material must be given to indicate their nature and importance, to show how streaked they are with bias, to present different points of view, and to increase the background of information from which the more advanced work in the social sciences may benefit. This necessitates a limitation of the number of problems and avoids one of the greatest dangers of a problem course—attempting to cover too extensive a field in too superficial a way.
>
> The selection of questions of immediate concern, questions discussed in newspaper and periodical, places the student on ground with which he is in a degree familiar. Few persons enter college without some opinion or interest with regard to such questions as race and immigration, the relations of capital and labor, or war and peace. In a problem course this interest is capitalized. Clash of opinion is secured through the controversial nature of the problems. Classroom discussion is provoked. The student is asked to examine many points of view, to discard prejudices, to think for himself, and to form his own opinions after studying the data and considering the opinions of others [p. v].

The problems taken up after a preliminary chapter on "The Nation's Ideals" are as follows: "The Newspaper Problem," "The Immigration Problem," "The Negro Problem," "The Woman Problem," "The Industrial Problem," "Problem of Civil Liberty," "Problem of International Relations," "Problem of War and Peace."

To each problem a number of chapters are devoted. The nature of the material and the plan of organization can best be seen from a brief analysis of the treatment of one of the problems. For example, "The Woman Problem," which probably comprises the chief contribution of the authors in so far as content goes, is treated in five chapters devoted to "The Whys of the Woman Movement," "Some Existing Inequalities," "Discriminations Women Encounter in the Economic World" (two chapters), and "Equality through Economic Independence." The discussion includes a sketch of woman's status in the past and of the development of the woman movement in the United States, followed by a somewhat detailed exposition of existing legal, social, and economic inequalities from which women are said to suffer. Finally, several suggested

[1] Hayes Baker-Crothers and Ruth Allison Hudnut, *Problems of Citizenship*. New York: Henry Holt & Co., 1924. Pp. xiv+514.

solutions of the woman problem are considered, including among other material a discussion of division of labor in the home and a description of such co-operative institutions as community kitchens, nurseries, and laundries.

Opinions will differ concerning the merit of the volume. Some critics will doubtless comment unfavorably on the large amount of space given to problems of race and industry as compared with the inadequate treatment or total omission of such vital problems of citizenship as child labor, education, recreation, crime, the long ballot, taxation, and the stay-at-home voter. Other critics may regard the volume as lacking in the detached, impersonal point of view desirable and even essential in a text on social problems. On the other hand, many, if not all, of those who are aware of the inherent difficulties involved in preparing material for the teaching of citizenship will regard the book as possessing distinct merit and contributing to a genuine need. The latter opinion is held by the present reviewer. The volume is not without faults, but it will repay examination by all instructors giving introductory college courses in social science. It also contains much of value to supplement advanced courses in the social studies in secondary schools.

HOWARD C. HILL

An introductory text to teaching.—The educator who tries to produce a textbook for students who are just entering the teaching profession faces the problem of restricting his material to a relatively limited division of the field, thereby having opportunity for a thorough discussion of each problem, or of trying to cover all aspects of the field, thus limiting the amount of space devoted to each phase. The most satisfactory texts from the standpoint of classroom use have been those which followed the former procedure. They have dealt exclusively with methods, supervision, administration, the curriculum, or some other equally circumscribed sphere.

The author of a new text[1] has clearly failed to understand this fact. Within the limits of a single volume he tries to make beginning students cognizant of virtually all that is worth while concerning the science of education. Part I, entitled, "Guidance Factors for Beginning Teachers," covers 170 pages, of which twenty-two are devoted to questions and bibliography. The remaining 148 pages are divided among nine chapters, which have a total of approximately one hundred subtopics. Many of the topics are usually treated as separate chapters in other textbooks. A good example is chapter iii, entitled, "Other Occupations." In eight pages the author attempts to compare the advantages of teaching with the advantages of the professions of law and medicine, nursing, business, engineering, art (literature, painting, sculpture, and music), and military and naval life. Why the latter is included when the large majority of teachers are women and why agriculture, the ministry, politics, and home-making are not included is difficult to understand. Nursing is disposed of in a dozen lines, and no profession receives more than a page.

[1] Ned Harland Dearborn, *An Introduction to Teaching*. New York: D. Appleton & Co., 1925. Pp. xvi+338.

The strictly professional aspects of teaching, including the problems of tenure, magnitude of service, financial remuneration and other rewards, social status of the teacher, professional ethics, and the relation of the teacher to the parents and the community, are condensed into thirteen pages. Forces promoting education—the home, community, church, state, nation, and other agencies—are discussed in eight pages. Other chapters of equal brevity pertain to the teacher's qualifications, a general analysis of teaching, and classroom observation. The whole educational organization of the country as it relates to types of schools—private and public, urban and rural, from kindergarten through the university—including the various kinds of local, state, and national administrative participation, sample curriculums, vocational education, federal and state aid, is crowded into twenty-five pages. The junior high school is disposed of in a scant half-page, whereas the junior college is dignified with more than two pages. The most satisfactory chapter of Part I is concerned with problems which the teacher faces in actual classroom teaching, but even in this chapter the paragraphs are little more than suggestive.

Part II is concerned with "A General Survey of the Field of Professional Education." The opening chapter is a philosophical discussion of different concepts of education. The purposes and ideals of education are set forth in the next two chapters. In another chapter the effort is made to present education as a "science." One chapter is devoted to psychology in relation to teaching. Such subtopics as native equipment, native tendencies, acquired traits, instinctive behavior, habit formation, emotional behavior, thinking, general intelligence and its testing, and individual differences are presented in from one to seven pages each, the entire chapter totaling only twenty-eight pages. Methods and the curriculum are treated in like fashion.

The author makes practically no use of the available experiments in the various fields treated, although he quotes frequently from more general sources. The annotated bibliography at the end of each chapter is a commendable feature of the book. Many of the questions at the end of some of the chapters are likely to cause consternation in the minds of beginning students; they are asked, for example, to devise a model sixth-grade curriculum and to illustrate the value of formal discipline in the light of a half-page of discussion.

The teacher's health, improvement of efficiency in service, the teaching load, the selection of teachers, and teachers' organizations are topics which are not discussed but seemingly should have a place in a book of this kind. The important matter of the measurement of the teacher's efficiency is barely suggested.

The text can hardly be said to make any significant contribution for classroom purposes. It is highly suggestive of a large number of problems but fails to give satisfactory explanations of the nature of such issues. The classroom instructor will probably choose to use a text which is restricted to a smaller section of the teacher's problems and which treats that more extensively.

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

ANDERSON, C. J., BARR, A. S., and BUSH, MAYBELL G. *Visiting the Teacher at Work.* New York: D. Appleton & Co., 1925. Pp. xviii+382.

BRUNER, HERBERT B. *The Junior High School at Work.* Teachers College Contributions to Education, No. 177. New York: Teachers College, Columbia University, 1925. Pp. viii+112.

COOK, JOHN HARRISON. *A Study of the Mill Schools of North Carolina.* Teachers College Contributions to Education, No. 178. New York: Teachers College, Columbia University, 1925. Pp. viii+56.

Creative Effort. Francis W. Parker School Studies in Education, Volume VIII. Chicago: Francis W. Parker School, 1925. Pp. 176. $0.50.

DOWNING, ELLIOT ROWLAND. *Teaching Science in the Schools.* Chicago: University of Chicago Press, 1925. Pp. xiv+186. $2.00.

Educational Yearbook of the International Institute of Teachers College, Columbia University, 1924. Edited by I. L. Kandel. New York: Macmillan Co., 1925. Pp. xiv+650.

EDWARDS, A. S. *The Psychology of Elementary Education.* Boston: Houghton Mifflin Co., 1925. Pp. xiv+334.

ENGELHARDT, FRED. *Forecasting School Population.* Teachers College Contributions to Education, No. 171. New York: Teachers College, Columbia University, 1925. Pp. x+66.

HEINMILLER, LOUIS E. *A First Book in Education.* New York: Century Co., 1925. Pp. x+278. $2.00.

KILPATRICK, WILLIAM HEARD. *Foundations of Method: Informal Talks on Teaching.* New York: Macmillan Co., 1925. Pp. xii+384.

OPPENHEIMER, JULIUS JOHN. *The Visiting Teacher Movement, with Special Reference to Administrative Relationships.* New York: Joint Committee on Methods of Preventing Delinquency (50 East 42d Street), 1925 [second edition]. Pp. xviii+206. $0.75.

PATERSON, DONALD G. *Preparation and Use of New-Type Examinations.* Yonkers-on-Hudson, New York: World Book Co., 1925. Pp. vi+88. $0.60.

PAYNE, E. GEORGE, and SCHROEDER, LOUIS C., with an introduction by John W. Withers. *Health and Safety in the New Curriculum.* New York: American Viewpoint Society, Inc., 1925. Pp. 318.

PEPPARD, HELEN M. *The Correction of Speech Defects.* New York: Macmillan Co., 1925. Pp. x+180.

PETERSON, JOSEPH. *Early Conceptions and Tests of Intelligence.* Yonkers-on-Hudson, New York: World Book Co., 1925. Pp. xiv+320. $2.16.

ROGERS, FREDERICK RAND. *Physical Capacity Tests in the Administration of Physical Education.* Teachers College Contributions to Education, No. 173. New York: Teachers College, Columbia University, 1925. Pp. viii+94.

SCHORLING, RALEIGH. *A Tentative List of Objectives in the Teaching of Junior High School Mathematics, with Investigations for the Determining of Their Validity.* Ann Arbor, Michigan: George Wahr, 1925. Pp. 138.

SINGLETON, GORDON G. *State Responsibility for the Support of Education in Georgia.* Teachers College Contributions to Education, No. 181. New York: Teachers College, Columbia University, 1925. Pp. 56.

Texas Educational Survey Report: Volume I, *Organization and Administration*, by George A. Works and Others, pp. 446; Volume II, *Financial Support*, by B. F. Pittenger and George A. Works, pp. 152; Volume III, *Secondary Education*, by C. H. Judd, pp. 104; Volume IV, *Educational Achievement*, by Paul J. Kruse, Helen Lois Koch, and Rietta Simmons, pp. 234; Volume V, *Courses of Study and Instruction*, by Margaret E. Noonan, Orville G. Brim, and Clarence T. Gray, pp. 524; Volume VI, *Higher Education*, by L. D. Coffman, Clyde M. Hill, F. J. Kelly, George F. Zook, and George A. Works, pp. 390; Volume VII, *Vocational Education*, by N. E. Fitzgerald, Stella Palmer, and B. W. Johnson, pp. 166; Volume VIII, *General Report*, by George A. Works, pp. 256. Austin, Texas: Texas Educational Survey Commission, 1925. (A limited number of copies is available for free distribution to higher educational institutions and to libraries. These may be had upon application to the State Librarian, Capitol Station, Austin, Texas.)

TROW, WILLIAM CLARK. *Scientific Method in Education.* Boston: Houghton Mifflin Co., 1925. Pp. xii+160. $1.20.

VANUXEM, MARY. *Education of Feeble-minded Women.* Teachers College Contributions to Education, No. 174. New York: Teachers College, Columbia University, 1925. Pp. vi+74.

WALLIN, J. E. WALLACE. *Studies of Mental Defects and Handicaps.* Miami University Bulletin, Series XXII, No. 5. Oxford, Ohio: Miami University, 1925. Pp. 178. $0.75.

WARD, C. H. *What Is English?* Chicago: Scott, Foresman & Co., 1925 [revised]. Pp. 488. $1.60.

WYNNE, JOHN P. *Guide to the Principles of Educational Methods: Topics and Questions.* Farmville, Virginia: State Teachers College, 1925. Pp. 88.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

American Poetry and Prose. Edited by Norman Foerster under the general editorship of Robert Morss Lovett. Boston: Houghton Mifflin Co., 1925. Pp. xvi+1064. $4.00.

American Short Stories. Edited for school use by James F. Royster. Chicago: Scott, Foresman & Co., 1925. Pp. xxvi+342. $0.72.

BARBER, HARRY C. *Everyday Algebra for the Ninth School Year.* Boston: Houghton Mifflin Co., 1925. Pp. xii+372. $1.24.

A Book of Modern Plays. Edited by George R. Coffman. Chicago: Scott, Foresman & Co., 1925. Pp. 490. $0.96.

BOURNE, HENRY ELDRIDGE, and BENTON, ELBERT JAY. *American History.* Boston: D. C. Heath & Co., 1925. Pp. x+674+xlvi.

BRESLICH, ERNST R. *Junior Mathematics,* Book Two. New York: Macmillan Co., 1925. Pp. x+264.

BUCHANAN, HERBERT E., and EMMONS, LLOYD C. *A Brief Course in Advanced Algebra.* Prepared under the editorship of John Wesley Young. Boston: Houghton Mifflin Co., 1925. Pp. viii+186. $0.88.

CANBY, HENRY SEIDEL, and OPDYCKE, JOHN BAKER. *The Elements of Composition.* Good English: Book Two. New York: Macmillan Co., 1925 [revised]. Pp. xiv+700.

Contemporary Verse. Edited by A. Marion Merrill and Grace E. W. Sprague. Boston: Little, Brown & Co., 1925. Pp. xviii+326. $1.25.

Course of Study in English for Montana High Schools. Helena, Montana: State Department of Public Instruction, 1925. Pp. 88.

DOW, GROVE SAMUEL, in collaboration with Edgar B. Wesley. *Social Problems of Today.* New York: Thomas Y. Crowell Co., 1925. Pp. xvi+338. $2.00.

GIDE, ANDRÉ. *Si le grain ne meurt.* Edited by V. F. Boyson. New York: Oxford University Press, American Branch, 1925. Pp. 112. $0.50.

HAGBOLDT, PETER. *How to Study Modern Languages in High School.* Chicago: University of Chicago Press, 1925. Pp. vi+32.

HECKMAN, ALBERT W. *Paintings of Many Lands and Ages: An Introduction to Picture Study and Art Appreciation.* New York: Art Extension Society (415 Madison Avenue), 1925. Pp. 64. $0.50.

HESSLER, JOHN C. *The First Year of Science.* Chicago: Benj. H. Sanborn & Co., 1925 [revised]. Pp. xii+576.

MEYER, MARTIN. *First Problems in Chemistry.* Boston: D. C. Heath & Co., 1925. Pp. viii+300. $1.60.

MURRAY, A. L., and WILES, ERNEST P. *A First Book in English for High Schools.* Boston: D. C. Heath & Co., 1925 [revised]. Pp. x+478. $1.60.

PARKER, BERTHA MORRIS, and COWLES, HENRY CHANDLER. *The Book of Plants.* Boston: Houghton Mifflin Co., 1925. Pp. vi+252. $0.88.

ROBBINS, CHARLES L., in collaboration with Elmer Green. *School History of the American People.* Yonkers-on-Hudson, New York: World Book Co., 1925. Pp. xxxiv+606. $1.72.

VOGT, PAUL L. *Introduction to Rural Economics.* New York: D. Appleton & Co., 1925. Pp. xii+378.

PUBLICATIONS OF THE UNITED STATES BUREAU OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

GILES, J. T. Giles Recitation Score Card. Yonkers-on-Hudson, New York: World Book Co., 1925.

HENMON, V. A. C. *A French Word Book Based on a Count of 400,000 Running Words.* Bureau of Educational Research Bulletin Number 3. Madison, Wisconsin: University of Wisconsin, 1924. Pp. 84. $0.75.

Recent issues of the Bureau of Education:

Bulletin No. 4, 1925—*Land-Grant College Education, 1910 to 1920, Part III.*

Bulletin No. 5, 1925—*Land-Grant College Education, 1910 to 1920, Part IV.*

Bulletin No. 8, 1925—*Elementary Instruction of Adults.*

Bulletin No. 9, 1925—*Some Lessons from a Decade of Rural Supervision.*

Bulletin No. 10, 1925—*The Rural High School: Its Organization and Curriculum.*

Bulletin No. 12, 1925—*Statistics of State Universities and State Colleges for Year Ending June 30, 1924.*

Bulletin No. 14, 1925—*Record of Current Educational Publications.*

MISCELLANEOUS PUBLICATIONS

Annual Report of the Board of Regents of the Smithsonian Institution for the Year Ending June 30, 1923. Washington: Government Printing Office, 1925. Pp. xii+578. $2.00.

ATHEARN, WALTER S., and OTHERS. *Measurements and Standards in Religious Education.* The Indiana Survey of Religious Education, Volume Two. New York: George H. Doran Co., 1924. Pp. x+532. $5.00.

BLAKESLEE, GEORGE H. *The Recent Foreign Policy of the United States.* New York: Abingdon Press, 1925. Pp. 368. $2.00.

Children's Catalog (Third Edition). Compiled by Minnie Earl Sears. New York: H. W. Wilson Co., 1925. Pp. 644.

COMFORT, W. W. *The Choice of a College.* New York: Macmillan Co., 1925. Pp. viii+56.

HOLLANDER, JACOB H. *Economic Liberalism.* New York: Abingdon Press, 1925. Pp. 198. $1.50.

PATRI, ANGELO. *School and Home.* New York: D. Appleton & Co., 1925. Pp. 222. $1.50.

RICHMOND, WINIFRED. *The Adolescent Girl.* New York: Macmillan Co., 1925. Pp. xiv+212.

Singing Games and Drills. Prepared by Chester Geppert Marsh. New York: A. S. Barnes & Co., 1925. Pp. x+162. $2.00.

Southern Pioneers in Social Interpretation. Edited by Howard W. Odum. Chapel Hill, North Carolina: University of North Carolina Press, 1925. Pp. vi+222. $2.00.